



A Pictorial Key to the Mosquito Genera of the World, including Subgenera of *Aedes* and *Ochlerotatus* (Diptera: Culicidae)

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Abstract A pictorial key is presented for the identification of adult mosquitoes of 2 subfamilies of Culicidae, 2 genera of Anophelinae, 38 genera of Culicinae, 22 subgenera of *Aedes* and 20 subgenera of *Ochlerotatus*. Scanning electron micrographs (SEM) demonstrate the taxonomic characters used in the key.

Key words Pictorial key, identification, subfamilies, genera, mosquitoes, subgenera of *Aedes* and *Ochlerotatus*

INTRODUCTION

A recent key for the identification of 40 mosquito genera (and subgenera of *Aedes* and *Ochlerotatus*) of the world is not available and previous keys are now out of date or of limited use. In the early 1970s, Mattingly (1971) published a comprehensive, illustrated key to the genera of mosquitoes of the world that included 32 genera. Since then, two keys to the mosquito genera of the world CD-ROM were published by Harbach and Sandlant (1997), and by Rueda et al. (1998). Each key included 38 genera.

To assist field workers in identifying mosquitoes, a pictorial key to adults (males and females) has been prepared. This key includes: (1) Family Culicidae (Key to subfamilies of Culicidae), (2) Subfamily Anophelinae (Key to genera of Anophelinae), and (3) Subfamily Culicinae (Key to genera of Culicinae including subgenera of genus *Aedes* Meigen and the genus *Ochlerotatus* Lynch Arribalzaga). An attempt was made to make the key precise yet as simple as possible. A few additional characters, indicated by a double asterisk (**), were added wherever necessary to facilitate identification.

Figs 1–9 illustrate structures of the adult head, thorax, abdomen, leg and wing that are used in the key. The terminology follows Harbach and Knight (1980, 1982), with the exception of “tarsal claws,” which is retained for “ungues.” The venational terms follow those of Belkin (1962).

Knight and Stone (1977), in their world catalog of mosquitoes, classified the family Culicidae into 3 subfamilies: Anophelinae, Culicinae and Toxorhynchitinae. However, based on a phylogenetic analysis of the Culicidae, Harbach and Kitching (1998) reduced the subfamily status of Toxorhynchites and treated it as a tribe of Culicinae. Thus, the family Culicidae now consists of 2 subfamilies: Anophelinae and Culicinae. Other changes at the generic level since Harbach and Kitching (1998) are as follows: (1) Based on a cladistic analysis of Sabethini (Judd 1996, 1998), *Phoniomyia* Theobald was reduced to a subgenus in

Table 1. Current classification of the family Culicidae

Subfamily	Genus	Subfamily	Genus
1. Anophelinae	1. <i>Anopheles</i> Meigen		21. <i>Mansonia</i> Blanchard
	2. <i>Chagasia</i> Cruz		22. <i>Maorigoeldia</i> Edwards
2. Culicinae	3. <i>Aedeomyia</i> Theobald		23. <i>Mimomyia</i> Theobald
	4. <i>Aedes</i> Meigen		24. <i>Ochlerotatus</i> Lynch Arribalzaga
	5. <i>Armigeres</i> Theobald		25. <i>Onirion</i> Peyton and Harbach
	6. <i>Ayurakitia</i> Thurman		26. <i>Opifex</i> Hutton
	7. <i>Coquillettia</i> Dyar		27. <i>Orthopodomyia</i> Theobald
	8. <i>Culex</i> Linnaeus		28. <i>Psorophora</i> Robineau-Desvoidy
	9. <i>Culiseta</i> Felt		29. <i>Runchomyia</i> Theobald
	10. <i>Deinocerites</i> Theobald		30. <i>Sabethes</i> Robineau-Desvoidy
	11. <i>Eretmapodites</i> Theobald		31. <i>Shannoniana</i> Lane and Cerqueira
	12. <i>Ficalbia</i> Theobald		32. <i>Topomyia</i> Leicester
	13. <i>Galindomyia</i> Stone and Barreto		33. <i>Toxorhynchites</i> Theobald
	14. <i>Haemagogus</i> Williston		34. <i>Trichoprosopon</i> Theobald
	15. <i>Heizmannia</i> Ludlow		35. <i>Tripteroides</i> Giles
	16. <i>Hodgesia</i> Theobald		36. <i>Udaya</i> Thurman
	17. <i>Isostomyia</i> Coquillett		37. <i>Uranotaenia</i> Lynch Arribalzaga
	18. <i>Johnbelkinia</i> Zavortink		38. <i>Verrallina</i> Theobald
	19. <i>Limatus</i> Theobald		39. <i>Wyeomyia</i> Theobald
	20. <i>Malaya</i> Leicester		40. <i>Zeugomyia</i> Leicester

Wyeomyia Theobald, (2) *Verrallina* Theobald was restored to generic rank from a subgenus of *Aedes* (Reinert 1999), (3) Based on a phylogenetic analysis of Anophelinae (Sallum et al. 2000), *Bironella* Theobald was synonymized with *Anopheles* Meigen, (4) *Onirion* was described as a new genus of Sabethini (Harbach and Peyton 2000), (5) *Ayurakitia* Thurman was restored to generic rank from a subgenus of *Aedes* (Reinert 2000a), (6) Based on a cladistic analysis of the larval mouthparts, *Deinocerites* Theobald was reduced to subgeneric status in *Culex* Linnaeus (Navarro and Liria 2000), but for the present work, I retain the generic status of *Deinocerites*, and (7) *Ochlerotatus* Lynch Arribalzaga was elevated to generic rank from a subgenus of *Aedes* (Reinert 2000b). Thus, 40 genera are currently recognized in the family Culicidae. The 2 subfamilies with their constituent genera are indicated in Table 1.

Reinert (2000b), in his new classification of the composite genus *Aedes*, divided the genus into 2 genera: *Aedes* and *Ochlerotatus*. Reinert (2000b: 177) stated "No apparent consistent differences in adult habitus were noted for the 2 genera." He included 22 subgenera in *Aedes* and 21 subgenera in *Ochlerotatus*, but provided no definition of the 2 genera using adult morphology. As a result, we now have 2 composite genera, *Aedes* and *Ochlerotatus*. The 2 composite genera with their constituent subgenera are indicated in Table 2.

It should be noted that Reinert (2000b: 181) erroneously reported "The gonostylar claw is absent in *Ae. (Stegomyia) desmotes* (Giles) and...." However, Huang (1977a: 28, Fig. 14C) stated "distimere simple, elongate, 0.7 as long as basimere; with numerous short setae and a short spiniform process on subapical inner side and with several long apical setae." There should be no doubt that the gonostylar claw is present in the typical *desmotes* (Giles).

Dyar and Knob (1907: 12) described *Aedes hortator*, a new species from Trinidad. Later Dyar (1922, 1928) placed this species in the subgenus *Ochlerotatus*. Edwards (1932), in his "Genera Insectorum," divided the subgenus *Ochlerotatus* into 8 groups which he designated A through H. Edwards assigned *Aedes hortator* Dyar and Knab to his Group F (*scapularis*

Table 2. Current new classification of the two composite genera *Aedes* and *Ochlerotatus*

Genus	Subgenus	Genus	Subgenus
1. <i>Aedes</i>	1. <i>Aedes</i> Meigen 2. <i>Aedimorphus</i> Theobald 3. <i>Alanstonea</i> Mattingly 4. <i>Albuginosus</i> Reinert 5. <i>Belkinus</i> Reinert 6. <i>Bothaella</i> Reinert 7. <i>Cancraedes</i> Edwards 8. <i>Christophersomyia</i> Barraud 9. <i>Diceromyia</i> Theobald 10. <i>Edwardsaedes</i> Belkin 11. <i>Fredwardsius</i> Reinert 12. <i>Huaedes</i> Huang 13. <i>Indusius</i> Edwards 14. <i>Isoaedes</i> Reinert 15. <i>Leptosomatomyia</i> Theobald 16. <i>Lorrainea</i> Belkin 17. <i>Neomelaniconion</i> Newstead 18. <i>Paraedes</i> Edwards 19. <i>Pseudarmigeres</i> Stone and Knight 20. <i>Scutomyia</i> Theobald 21. <i>Skusea</i> Theobald 22. <i>Stegomyia</i> Theobald	2. <i>Ochlerotatus</i>	1. <i>Abraedes</i> Zavortink 2. <i>Aztecaedes</i> Zavortink 3. <i>Chaetocruimyia</i> Theobald 4. <i>Finlaya</i> Theobald 5. <i>Geoskusea</i> Edwards 6. <i>Gymnometopa</i> Coquillett 7. <i>Halaedes</i> Belkin 8. <i>Howardina</i> Theobald 9. <i>Kenknightia</i> Reinert 10. <i>Kompia</i> Aitken 11. <i>Levua</i> Stone and Bohart 12. <i>Macleaya</i> Theobald 13. <i>Molpemyia</i> Theobald 14. <i>Mucidus</i> Theobald 15. <i>Nothoskusea</i> Dumbleton 16. <i>Ochlerotatus</i> Lynch Arribalzaga 17. <i>Protomacleaya</i> Theobald *18. <i>Pseudoskusea</i> Theobald 19. <i>Rhinoskusea</i> Edwards 20. <i>Rusticoides</i> Shevchenko and Prudkina 21. <i>Zavortinkius</i> Reinert

*Specimens of this subgenus are not available to me. Thus, the subgenus *Pseudoskusea* is not included in this key

group). Using this key, users will find that *Ae. hortator* is not in *Ochlerotatus*. The taxonomic status of this species will be treated in a separate paper (M.A.M. Sallum, personal communication).

Cornet (1974: 175) described *Aedes cozi*, a new species from Eastern Senegal, and placed it in the subgenus *Stegomyia*. Huang (2001) indicated that *Ae. cozi* Cornet is not in *Stegomyia*. The taxonomic status of this species will be treated in a separate paper.

Wyeomyia (*Davisomyia*) *petrocchiae* (Shannon and del Ponte) was transferred from the genus *Wyeomyia* to the genus *Sabethes* Robineau-Desvoidy by Harbach and Peyton (1991). However, *petrocchiae* has anteprenotal lobe without a conspicuous apicomesal angle (see P. 103, 104). Based on this diagnostic character in adults, *petrocchiae* should not have been considered a species of *Sabethes*. I hereby transfer *petrocchiae* back to *Wyeomyia*.

Sabethes schnusei (Martini) has anteprenotal lobe with a conspicuous apicomesal angle (see P. 103, 104). Based on this diagnostic character in adults, *schnusei* can be considered a species of the genus *Sabethes*. Harbach (1991) transferred *schnusei* from the genus *Wyeomyia* to the genus *Sabethes*. The generic placement is confirmed.

This study is based on specimens from the mosquito collections of the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM) and upon specimens that were received as gifts from the individual mentioned in the acknowledgments section. Susann G. Braden (SEM Laboratory, National Museum of Natural History, Smithsonian Institution) prepared pinned adults for scanning electron microscopy using standard procedures. Images of diagnostic characters directly taken from specimens using scanning electron microscopy are provided. Line drawings of certain diagnostic characters are given when specimens are not available using scanning electron microscopy for images. The "cut-off" date is September

2001, and changes in taxonomic status since then are not included.

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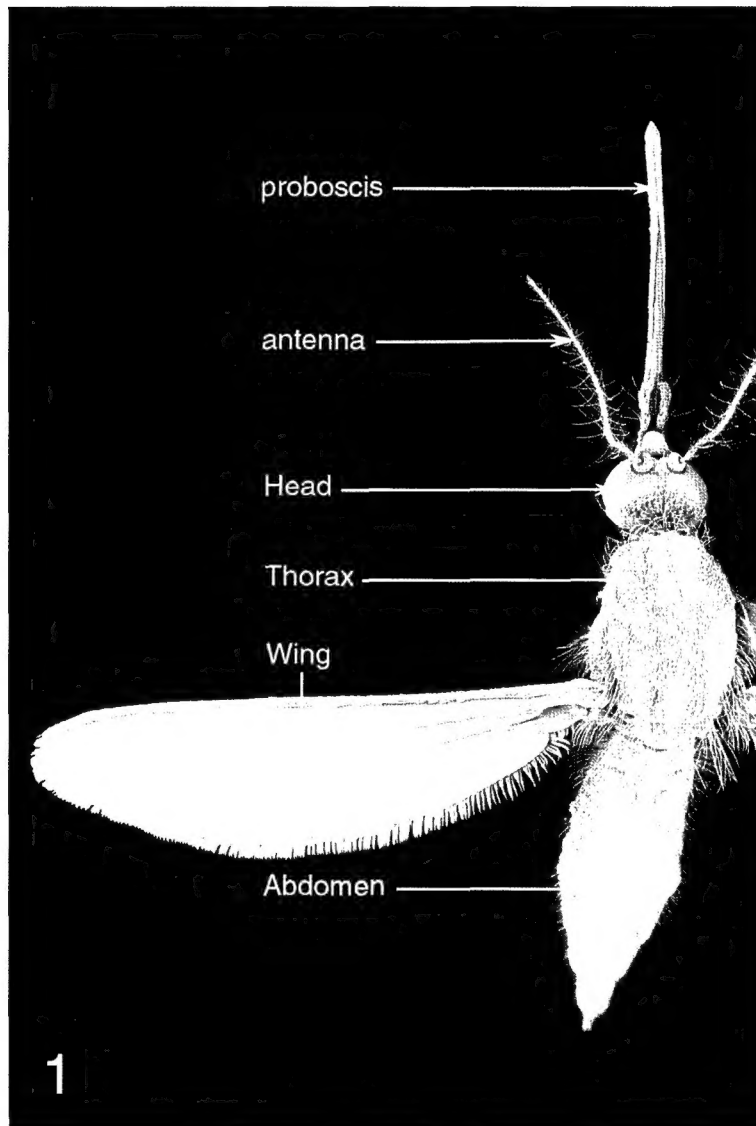
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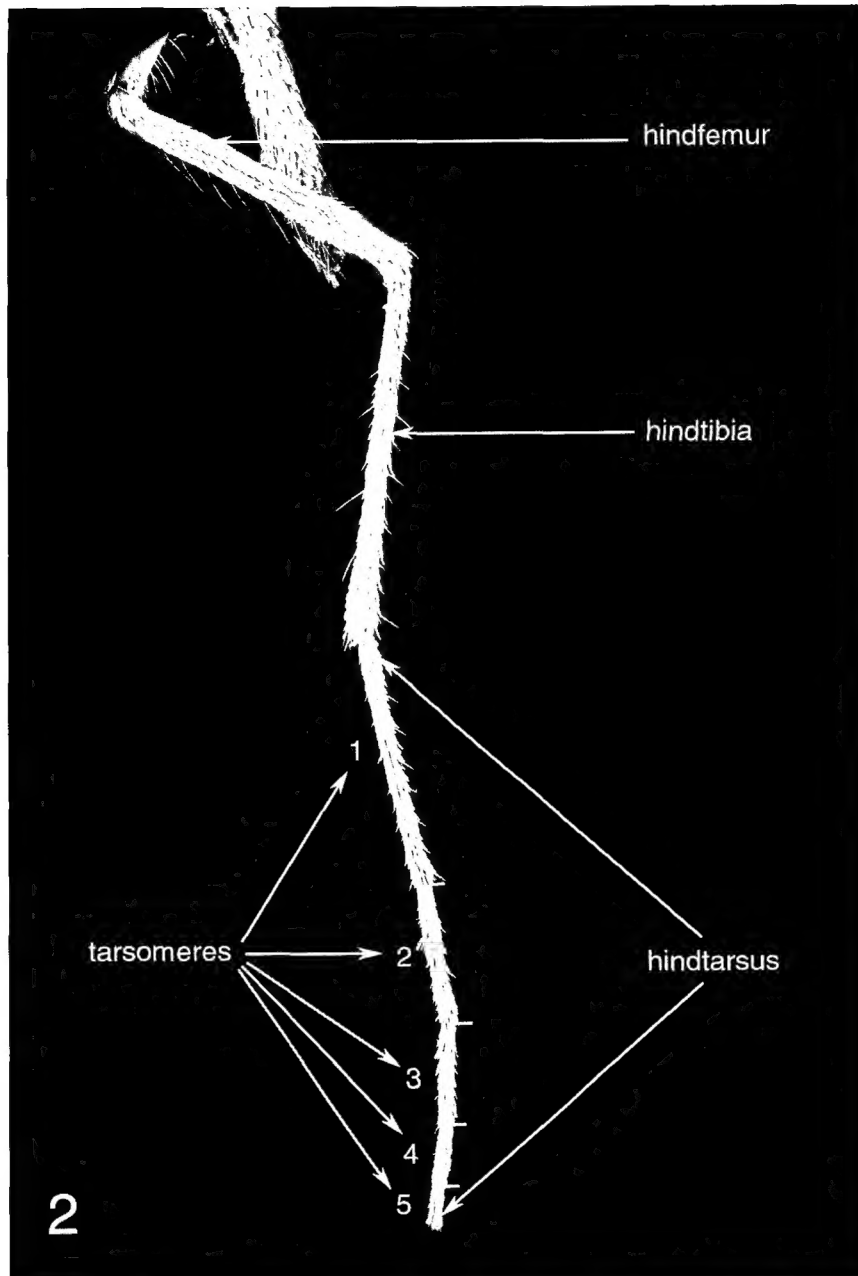
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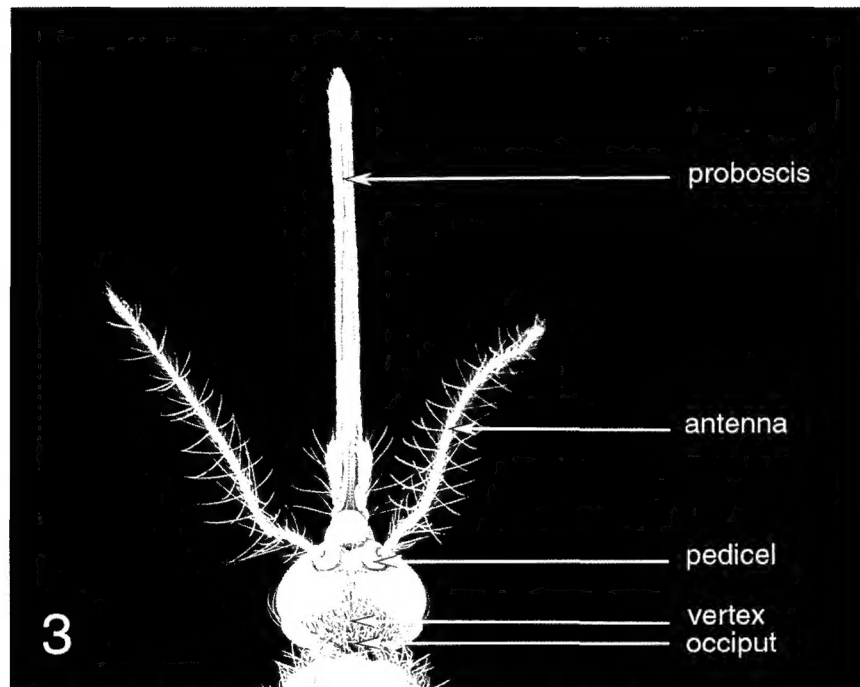
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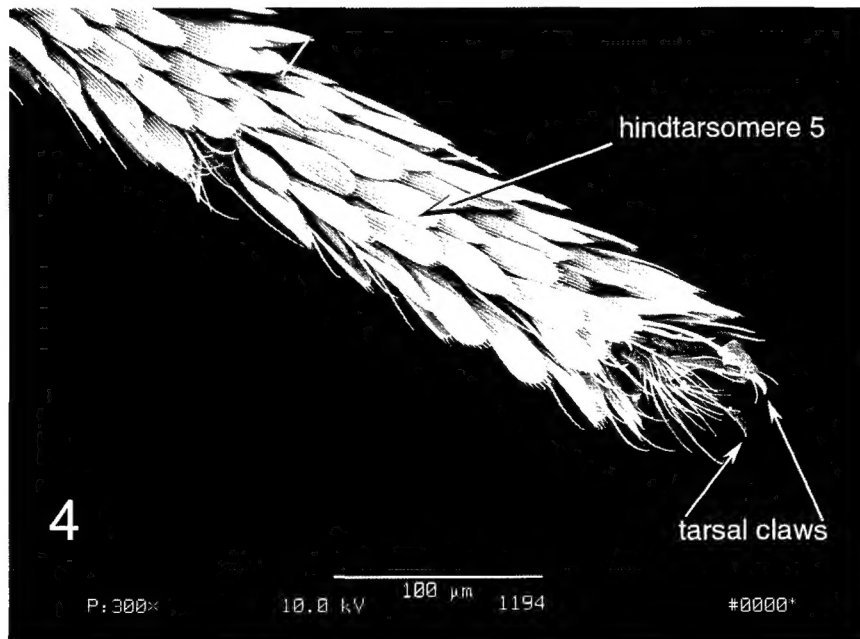
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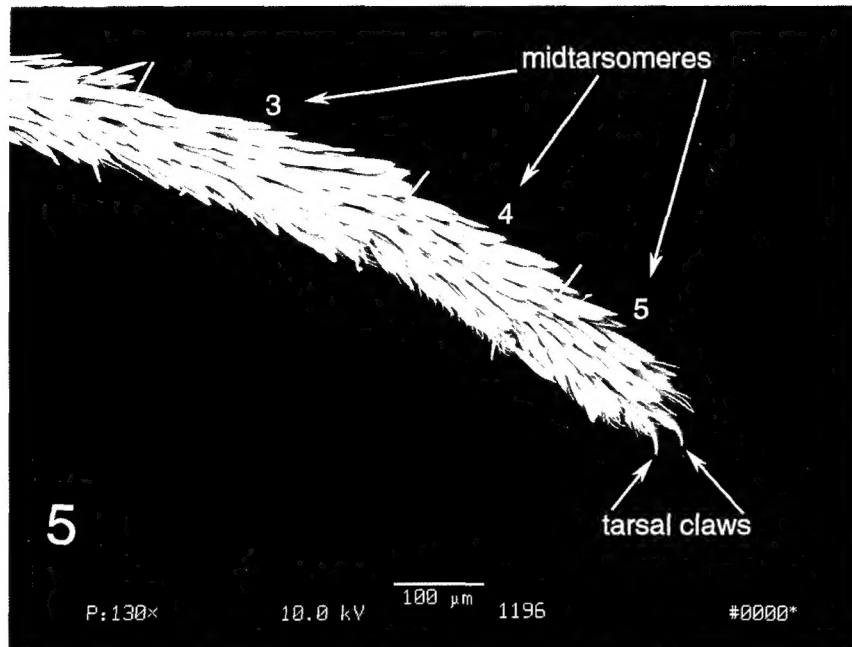
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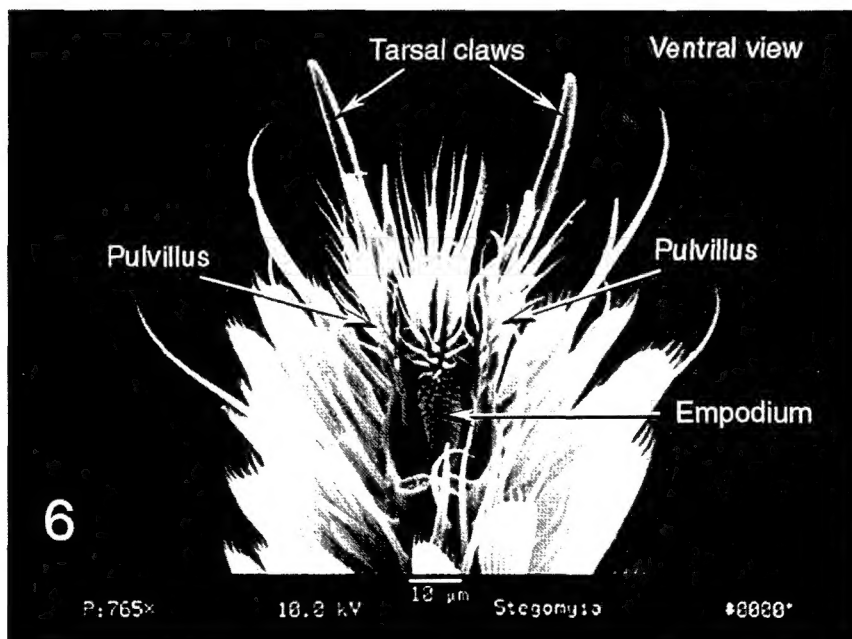
HEAD - DORSAL



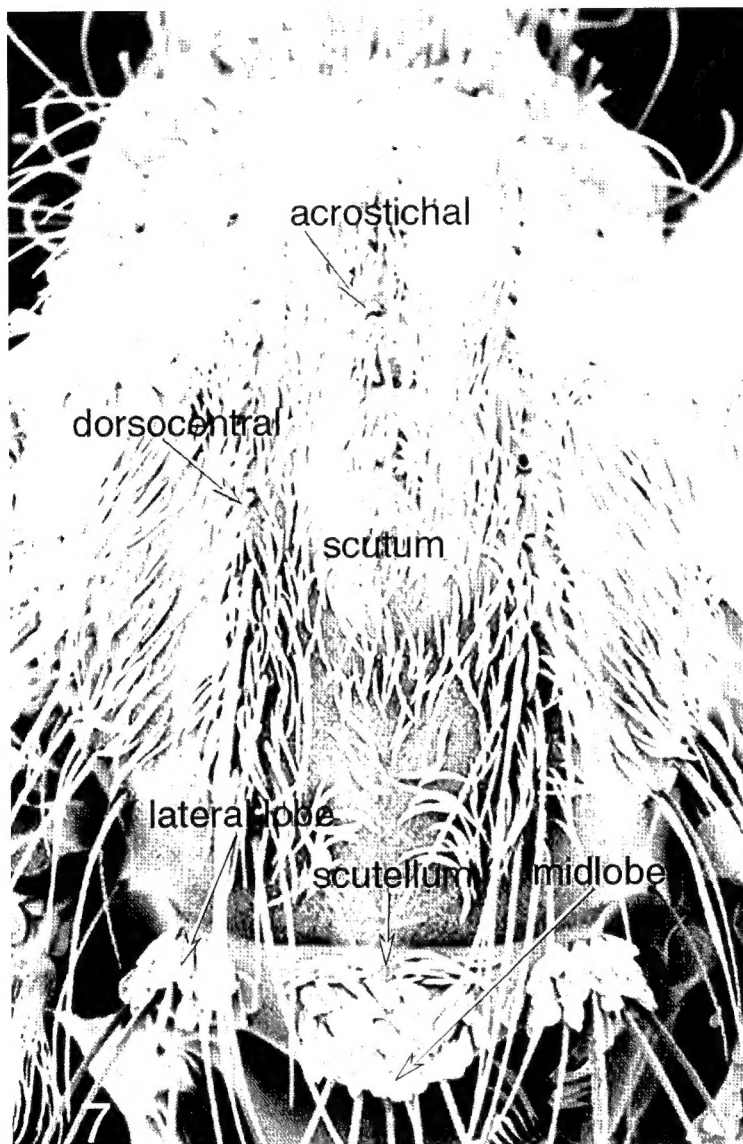
HINDTARSOMERE 5 WITH TARSAL CLAWS



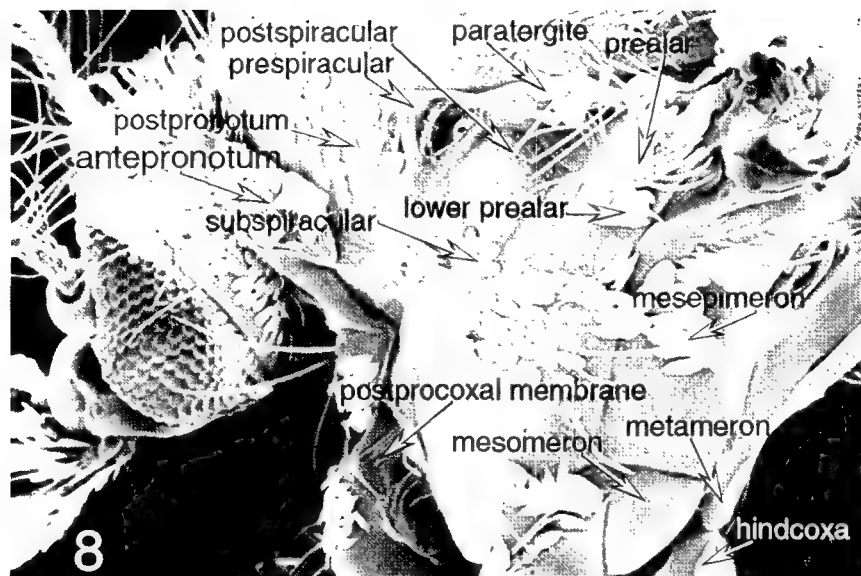
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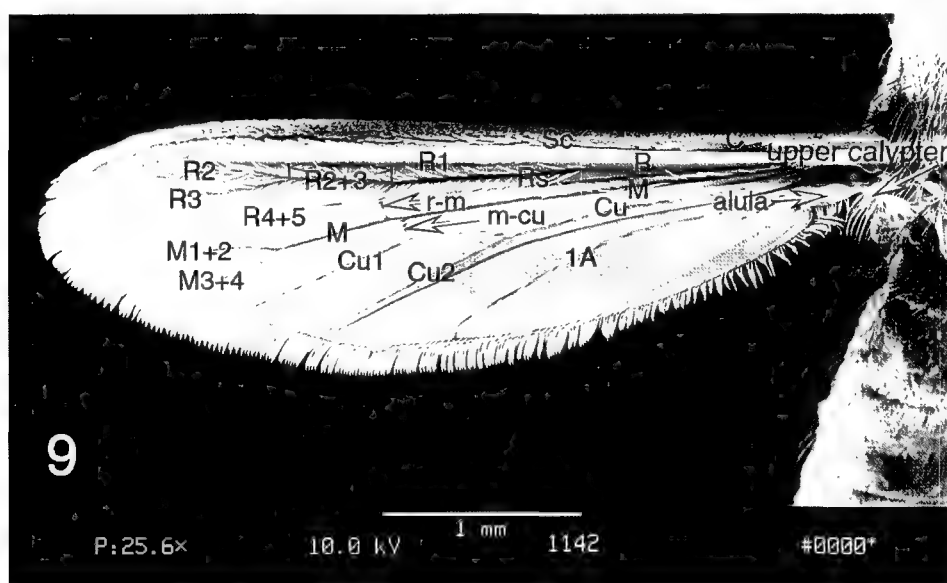
TARSAL CLAWS - VENTRAL



THORAX - DORSAL



THORAX - LATERAL

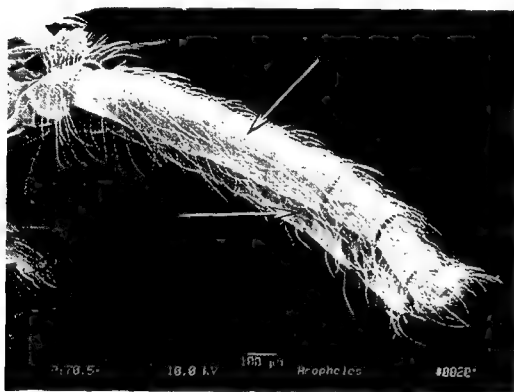


WING - DORSAL

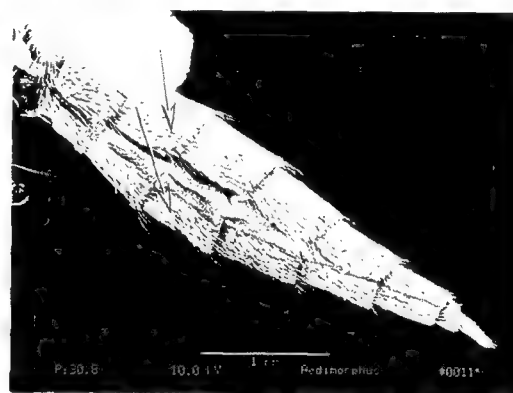
1. Key to Subfamilies of Culicidae

ADULTS

Abdomen. Completely or largely without scales

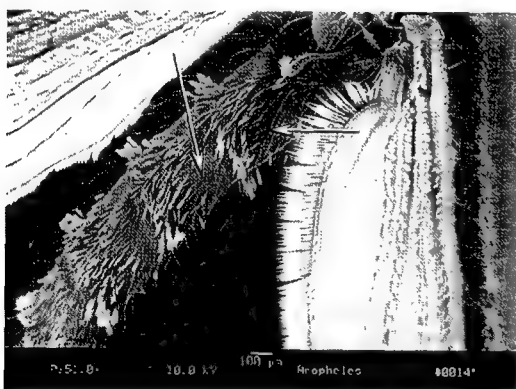


Abdomen. Completely or largely with dense, uniform covering of scales



Subfamily Culicinae

to Page 17



Subfamily Anophelinae

to Page 14

2. Key to Genera of Anophelinae

Page 14

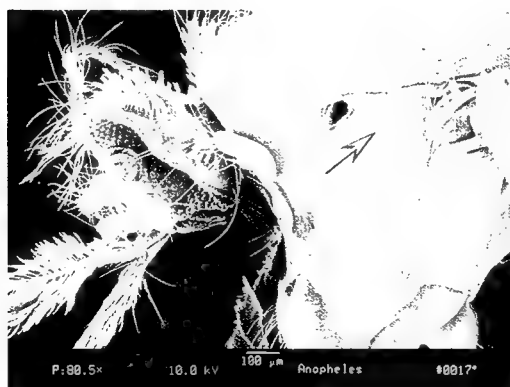
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Wing. Alula without scales



**|

Thorax. Postspiracular setae
absent

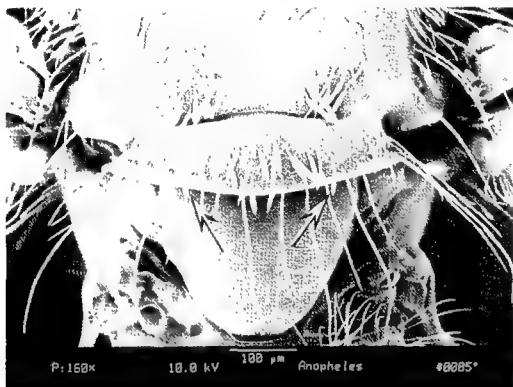


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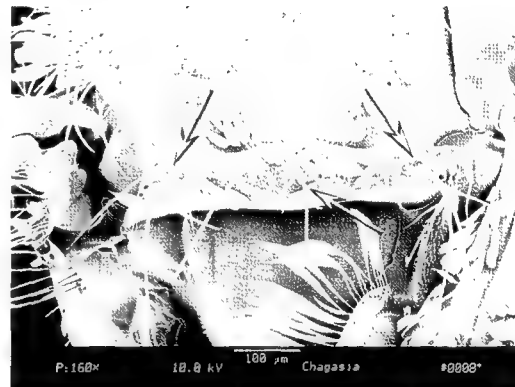
2. (continued)

Page 15

Thorax. Posterior margin of scutellum evenly rounded or slightly trilobed, with setae more or less evenly distributed

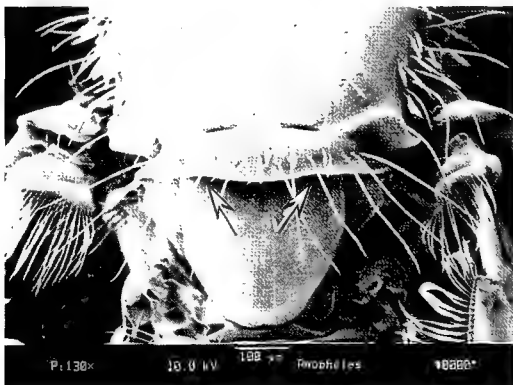


Thorax. Posterior margin of scutellum trilobed, with setae in 3 groups on all lobes



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Thorax. Paratergite with scales



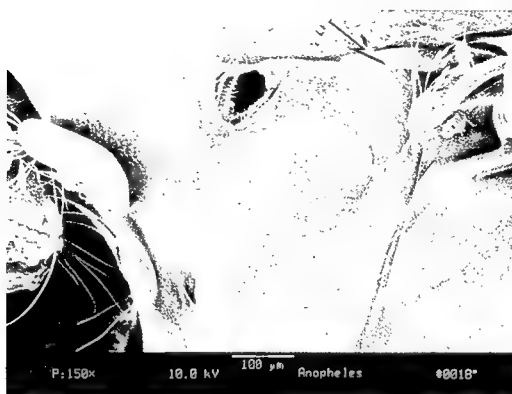
Chagasia

to Page 16

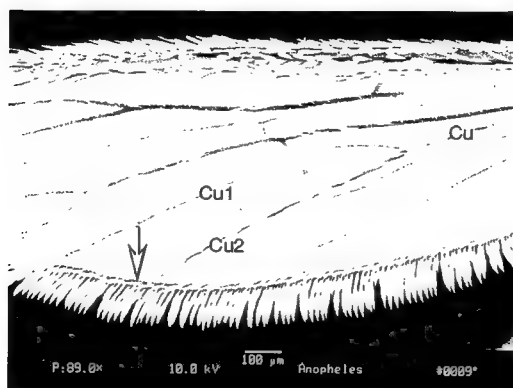
2. (continued)

Page 16

Thorax. Paratergite without scales

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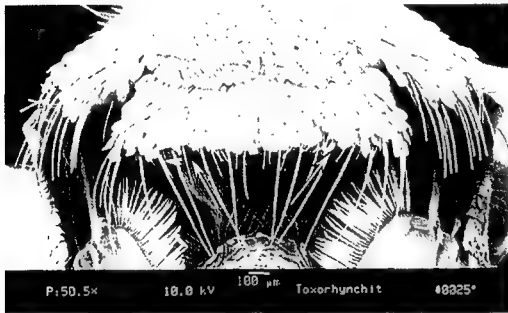
Wing. Posterior margin of wing not emarginated near tip of vein Cu2

**Anopheles**

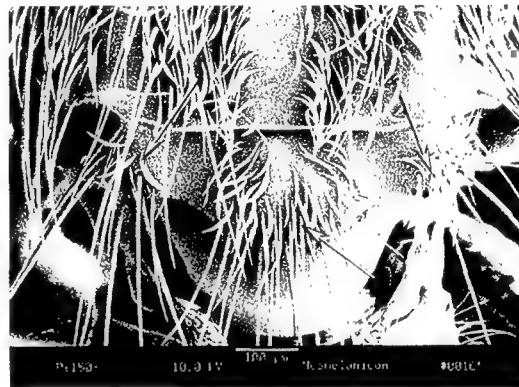
3. Key to Genera of Culicinae including Subgenera of *Aedes* and *Ochlerotatus*

Page 17

Thorax. Posterior margin of scutellum
evenly rounded, with setae evenly
distributed

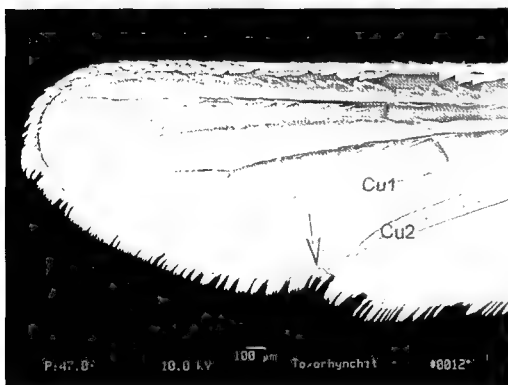


Thorax. Posterior margin of scutellum
trilobed, with setae in 3 groups on all
lobes



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Wing. Posterior margin of wing
emarginated near tip of vein Cu2



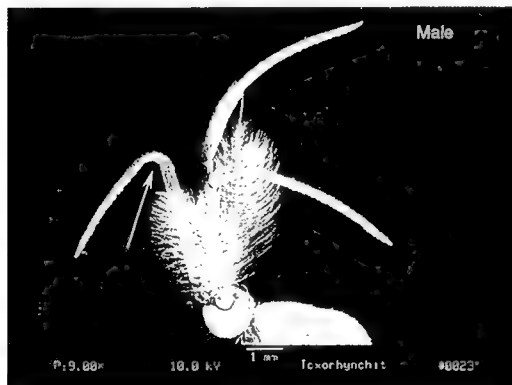
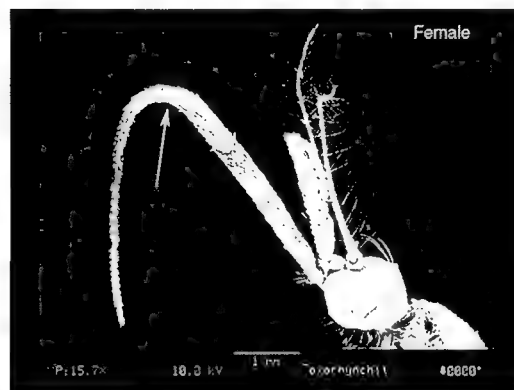
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to Page 18

3. (continued)

Page 18

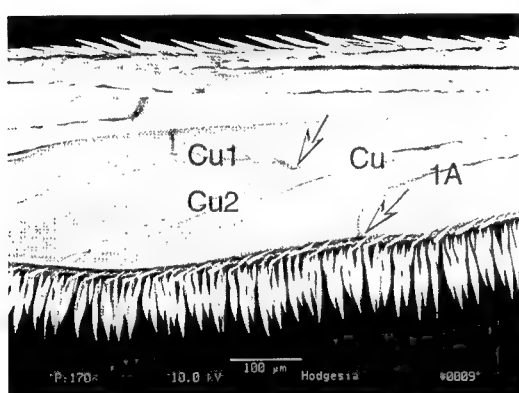
Head. Proboscis with apical half strongly recurved and more slender than basal half

***Toxorhynchites***

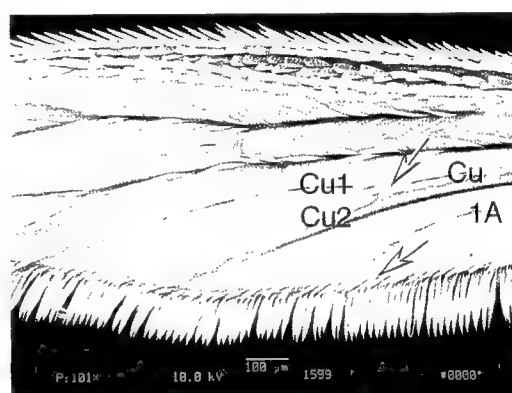
3. (continued)

Page 19

Wing. Vein 1A ending before, or near
base of fork of vein Cu

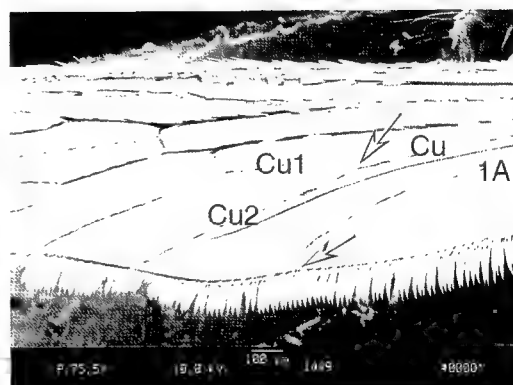
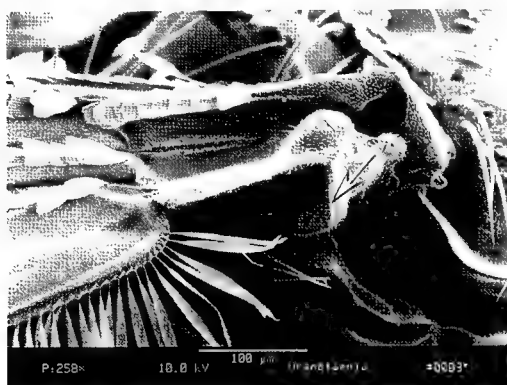


Wing. Vein 1A ending slightly, or well
beyond base of fork of vein Cu



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Wing. Upper calypter not fringed

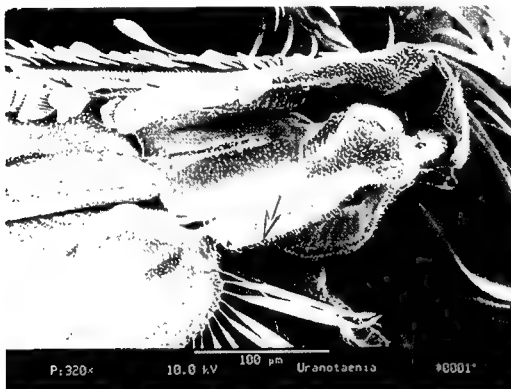
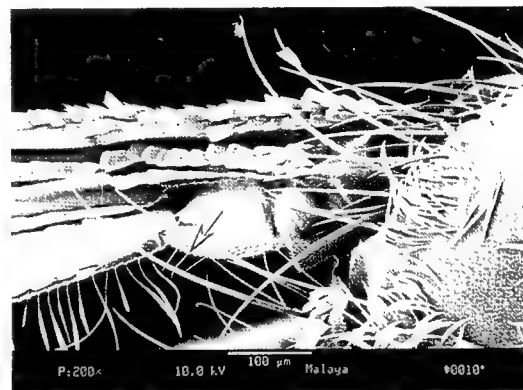


to Page 20

to Page 23

3. (continued)

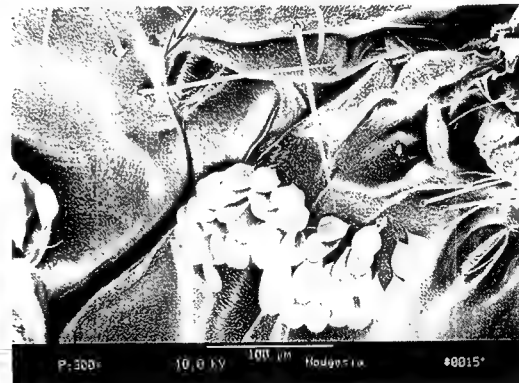
Page 20

Wing. Alula without scales, or with
broad decumbent scalesWing. Alula with narrow fringe
scales

to Page 21c

Thorax. Prespiracular setae
present

to Page 21a

Thorax. Prespiracular setae
absent

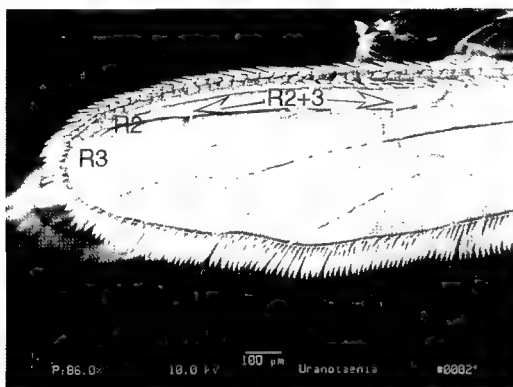
to Page 21b

3. (continued)

Page 21a

**

Wing. Vein R2+3 much longer than veins R2, R3

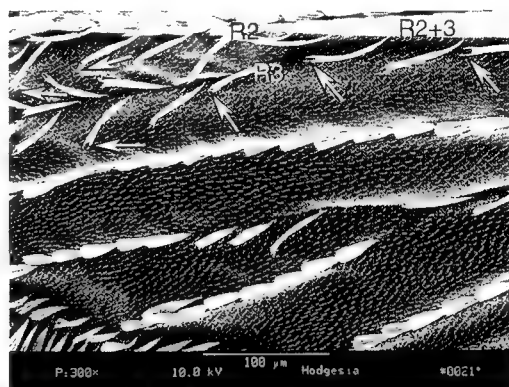


Uranotaenia

Page 21b

**

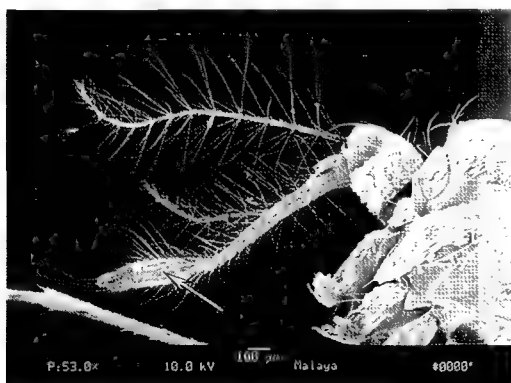
Wing. Veins R2+3, R2, R3 with outstanding scales emarginated at tip



Hodgesia

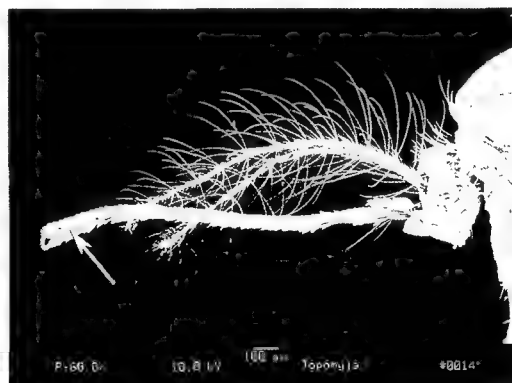
Page 21c

Head. Proboscis with apical part distinctly swollen, upturned and hairy



Malaya

Head. Proboscis sometimes with tip swollen, but not upturned and hairy

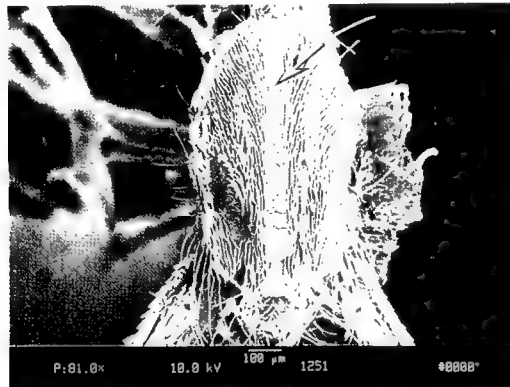


to Page 22

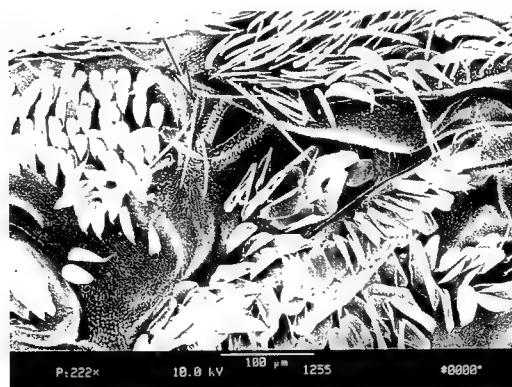
3. (continued)

Page 22

Thorax. Scutum with a conspicuous
median longitudinal stripe of broad, flat
scales

******

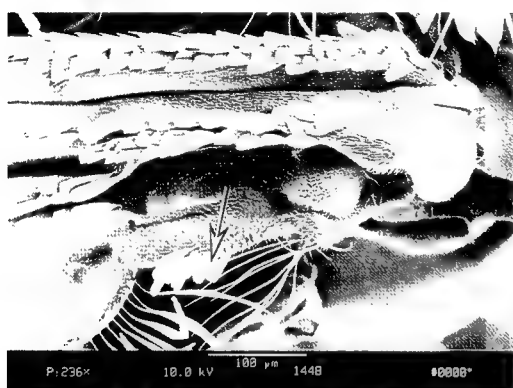
Thorax. Prespiracular setae
present

***Topomyia***

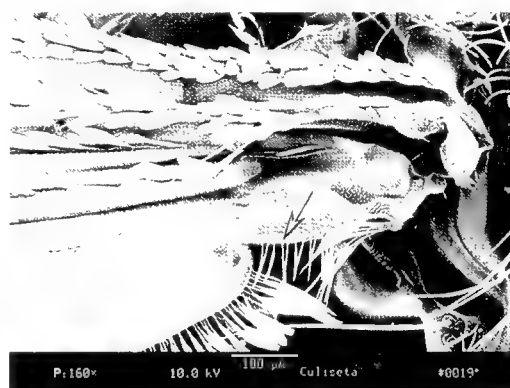
3. (continued)

Page 23

Wing. Alula without scales, or with broad decumbent scales

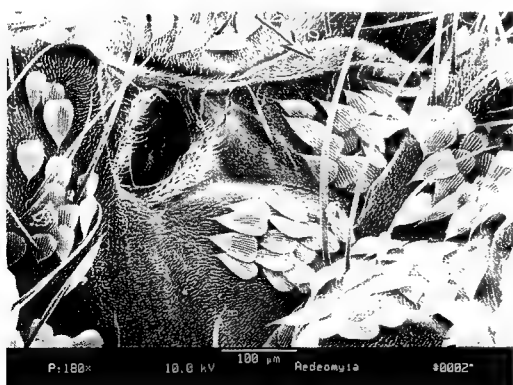


Wing. Alula with narrow fringe scales



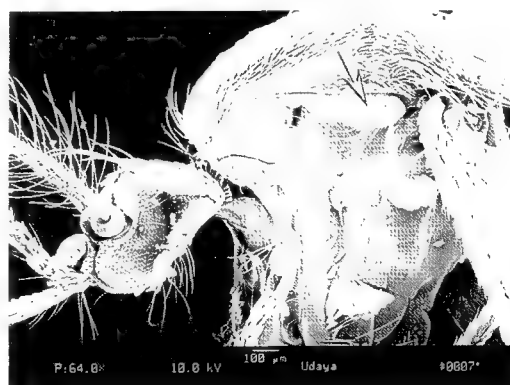
to Page 36

Thorax. Paratergite without scales



to Page 24

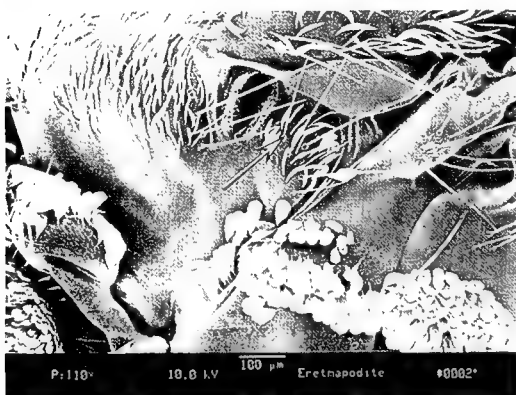
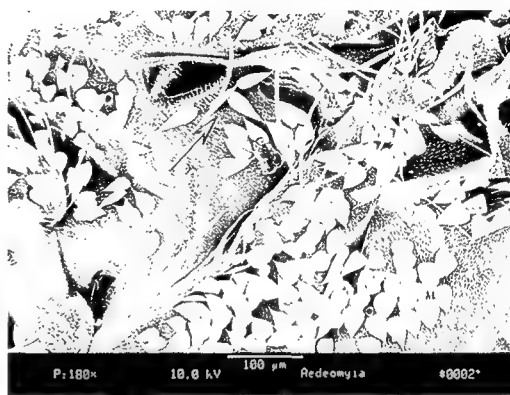
Thorax. Paratergite with scales



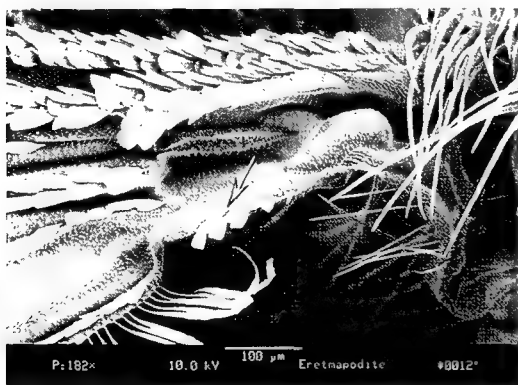
to Page 30

3. (continued)

Page 24

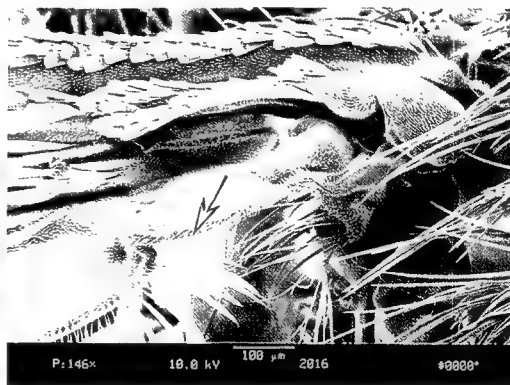
Thorax. Postspiracular setae
presentThorax. Postspiracular setae
absent

to Page 27b

Wing. Alula with broad decumbent
scales

to Page 25

Wing. Alula without scales

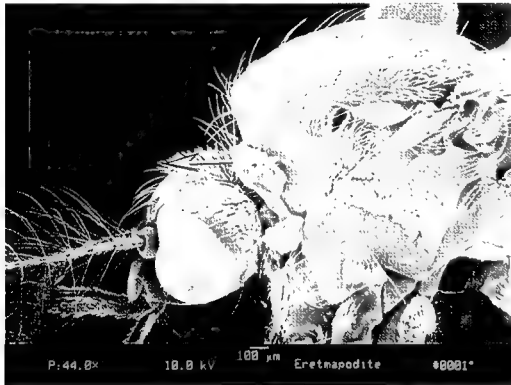


to Page 26b

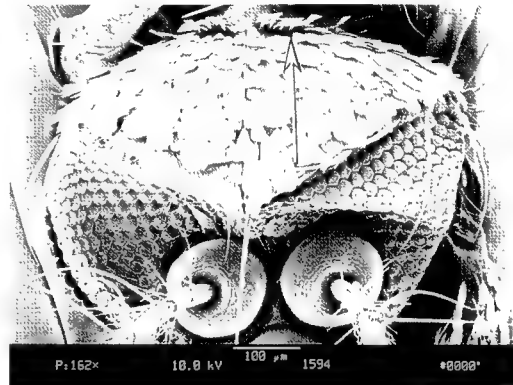
3. (continued)

Page 25

Head. Vertex with erect forked scales numerous, not restricted to occiput

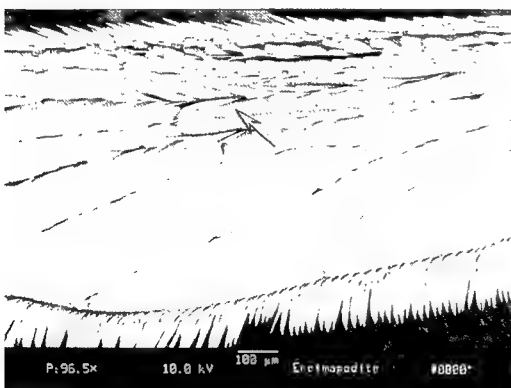


Head. Vertex with erect forked scales not numerous, restricted to occiput



**

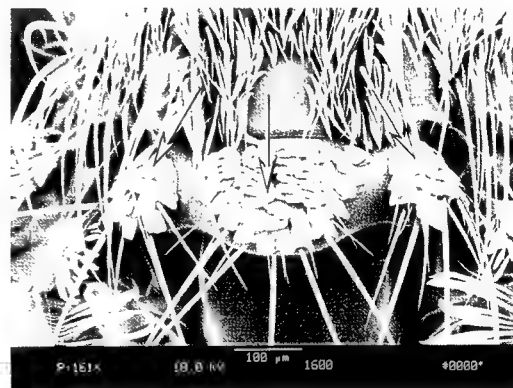
Wing. Plume scales all narrow



Eretmapodites

**

Thorax. Scutellum with all broad scales



to Page 26a

3. (continued)

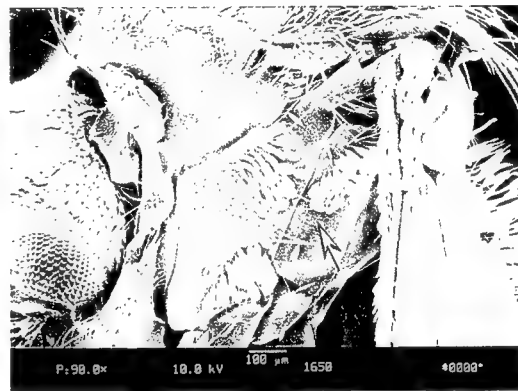
Page 26a

Thorax. Lower mesepimeral setae
present



Aedes (in part)
(*Cancraedes*)

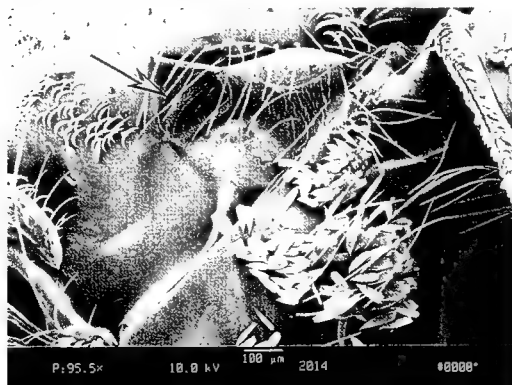
Thorax. Lower mesepimeral setae
absent



Aedes (in part)
(*Paraedes*) in part

Page 26b

Thorax. Prespiracular setae
present



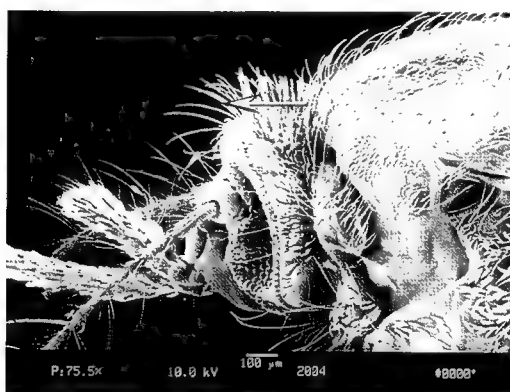
to Page 27a

3. (continued)

Page 27a

**

Head. Vertex with erect forked scales numerous, not restricted to occiput

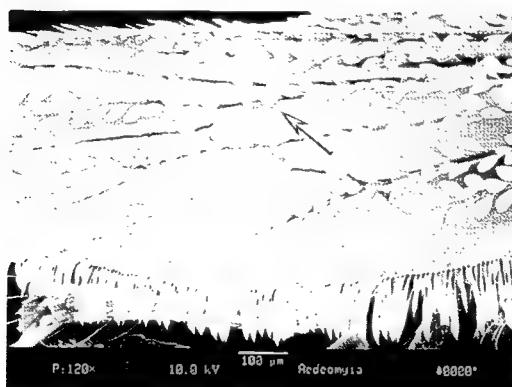


Psorophora (in part)

Page 27b

**

Wing. Plume scales all broad

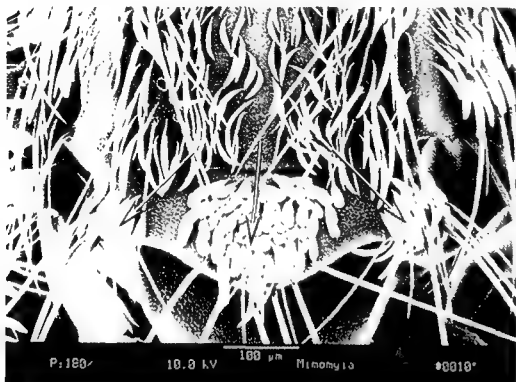


to Page 28

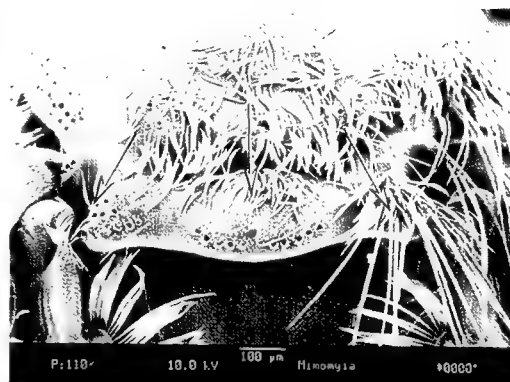
3. (continued)

Page 28

Thorax. Scutellum with all broad
scales

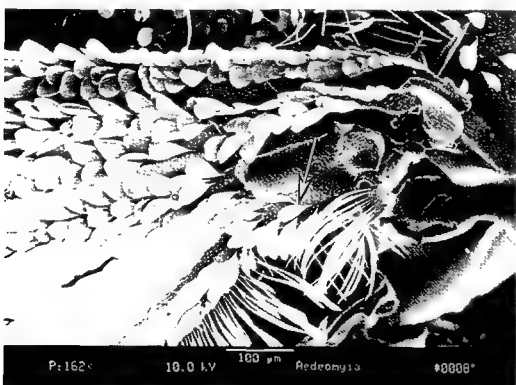


Thorax. Scutellum with all narrow
scales



**

Wing. Alula with broad decumbent
scales



**

Wing. Alula without scales



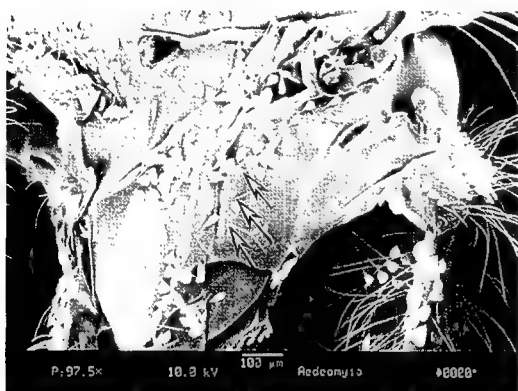
to Page 29

Mimomyia (in part)

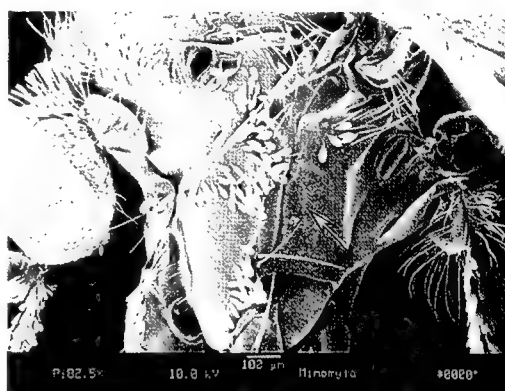
3. (continued)

Page 29

Thorax. Lower mesepimeral setae
present



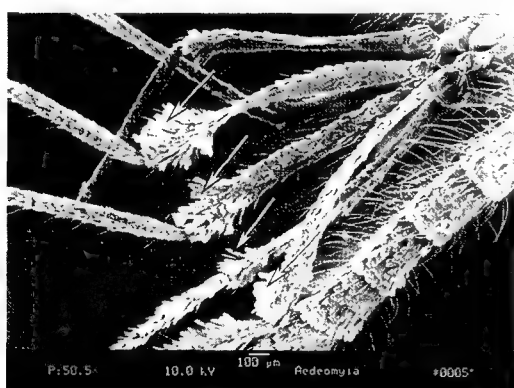
Thorax. Lower mesepimeral setae
absent



Mimomyia (in part)

**

Legs. Mid- and hindfemora with large
tufts of suberect scales at apex

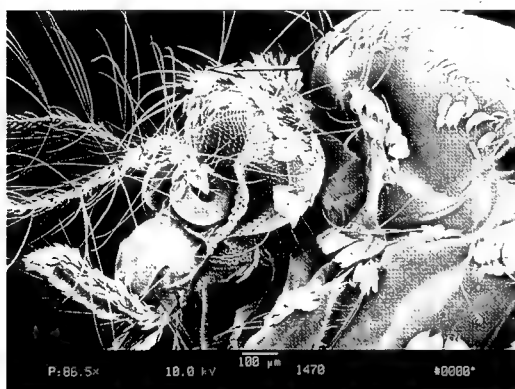


Aedeomyia

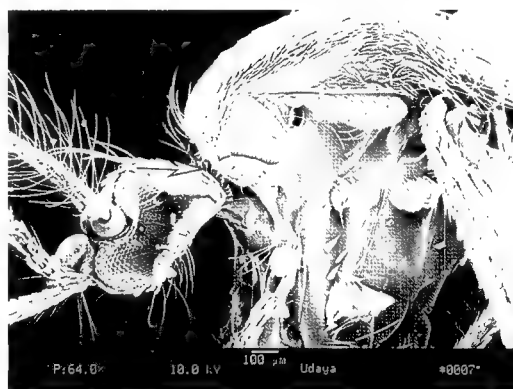
3. (continued)

Page 30

Head. Vertex with erect forked scales numerous, not restricted to occiput



Head. Vertex with erect forked scales not numerous, restricted to occiput



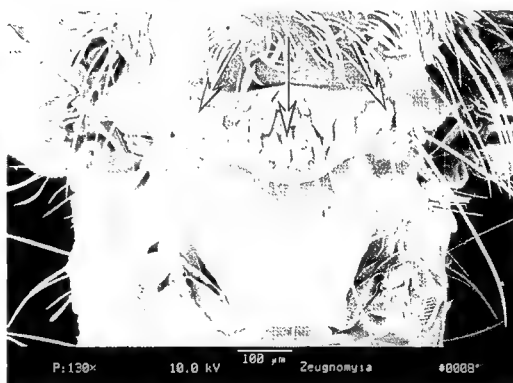
**

Thorax. Postspiracular setae present



**

Thorax. Scutellum with all broad scales



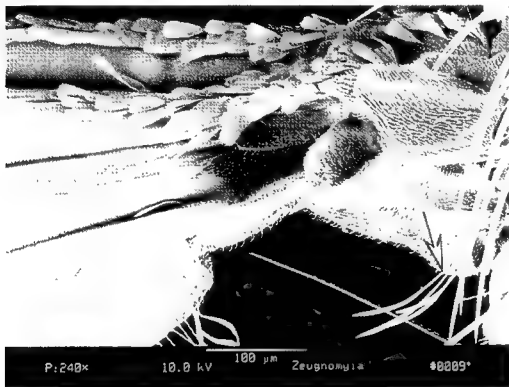
Ochlerotatus (in part)
(*Gymnometopa*) *mediovittatus*

to Page 31

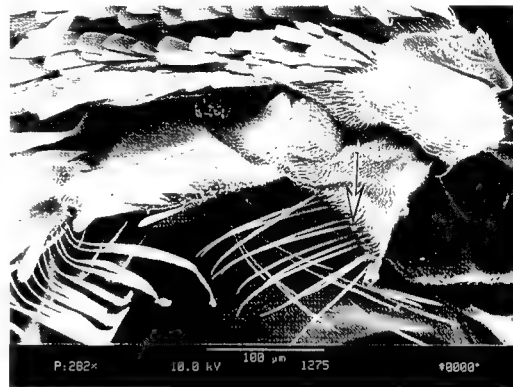
3. (continued)

Page 31

Wing. Upper calypter not fringed, or with only a few (4-6) setae

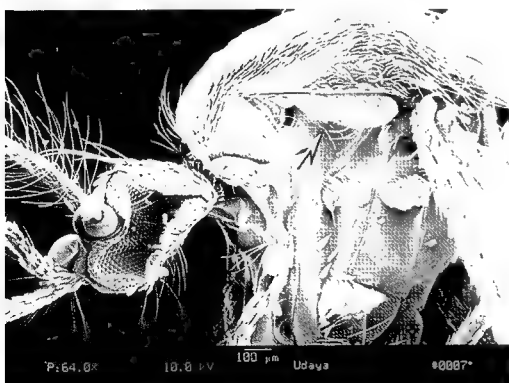


Wing. Upper calypter fringed with many hair-like setae



**

Thorax. Postspiracular setae present



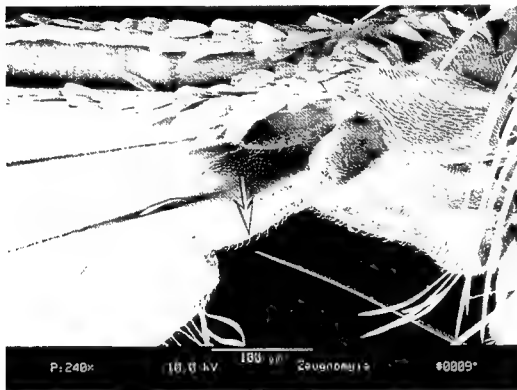
to Page 33

to Page 32

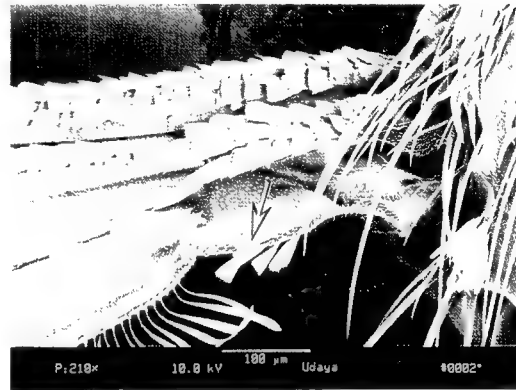
3. (continued)

Page 32

Wing. Alula without scales

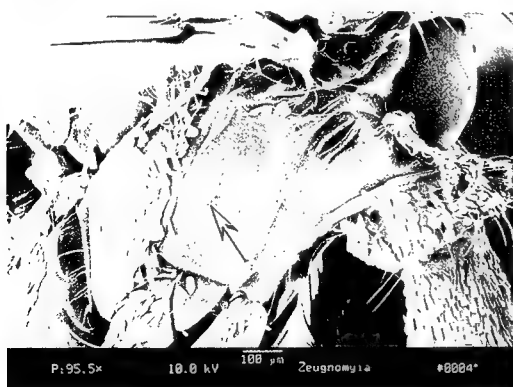


Wing. Alula with broad decumbent scales



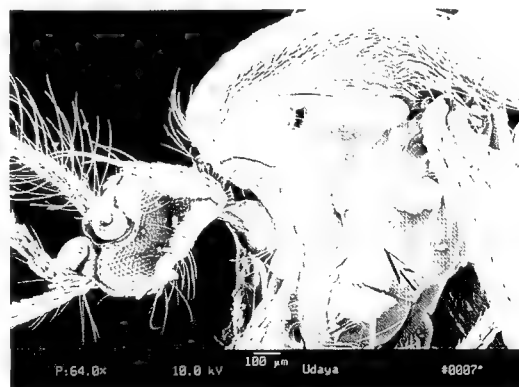
**

Thorax. Lower mesepimeral setae present

*Zeugomyia*

**

Thorax. Lower mesepimeral setae absent

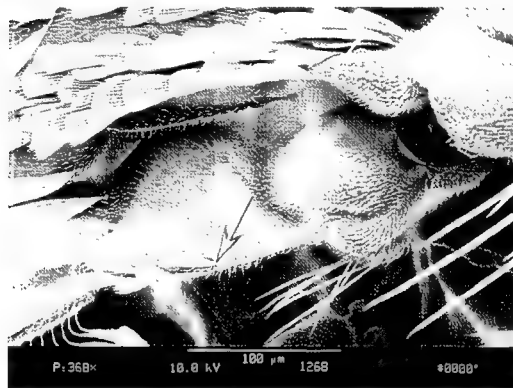
*Udaya*

3. (continued)

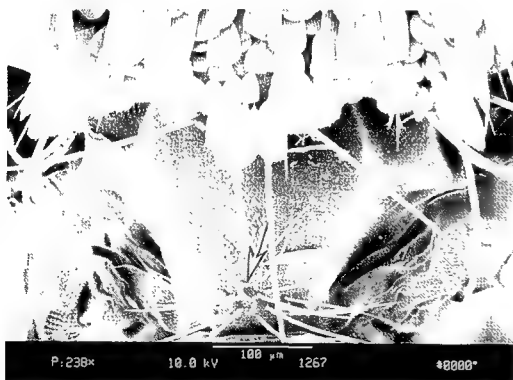
Page 33

**

Wing. Alula with broad decumbent scales

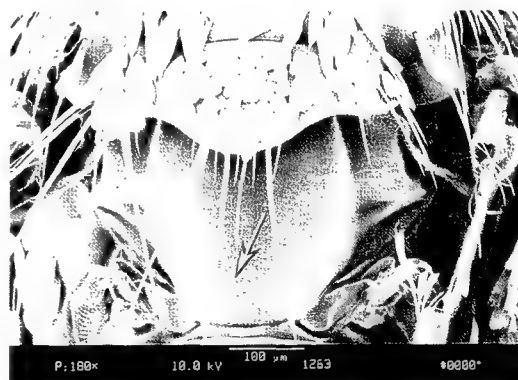


Thorax. Mesopostnotal setae present



to Page 34a

Thorax. Mesopostnotal setae absent



to Page 34b

3. (continued)

Page 34a

**

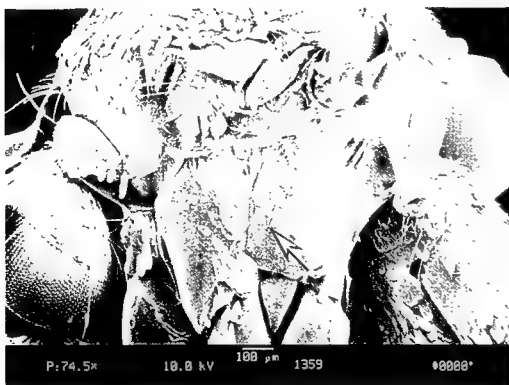
Thorax. Lower mesepimeral setae
present



Heizmannia (in part)

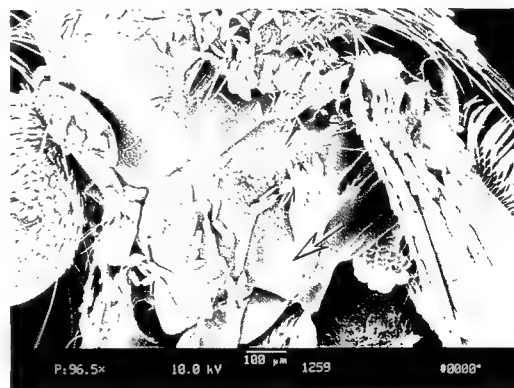
Page 34b

Thorax. Lower mesepimeral setae
present



Heizmannia (in part)

Thorax. Lower mesepimeral setae
absent



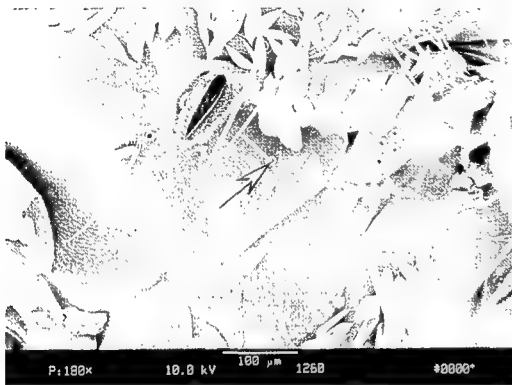
to Page 35

3. (continued)

Page 35

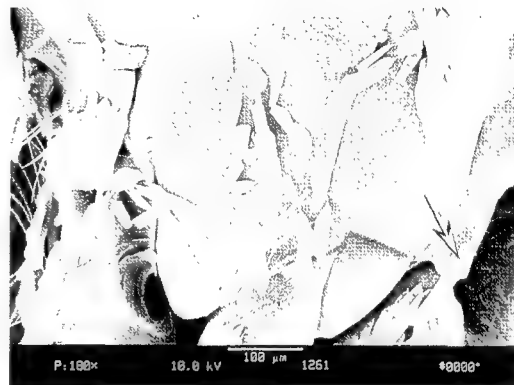
**** 1**

Thorax. Postspiracular setae
present



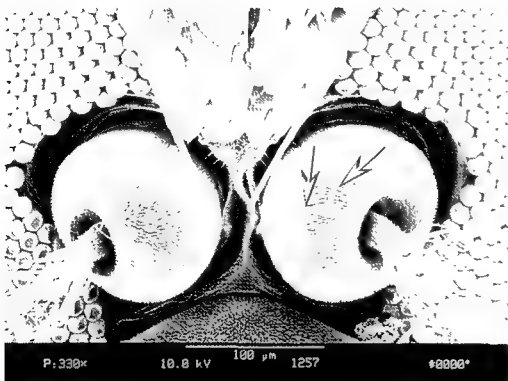
**** 2**

Thorax. Metameron without scales



**** 3**

Head. Pedicel with short fine setae
and a few small scales on mesal
surface

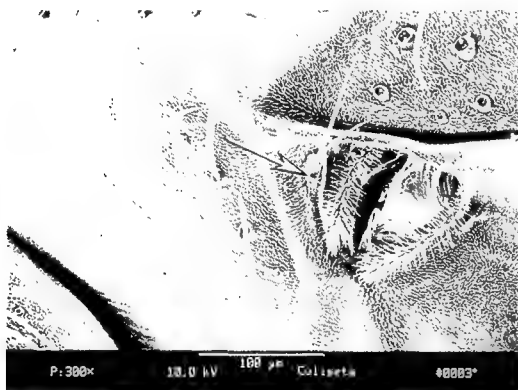


Heizmannia (in part)

3. (continued)

Page 36

Thorax. Prespiracular setae
present

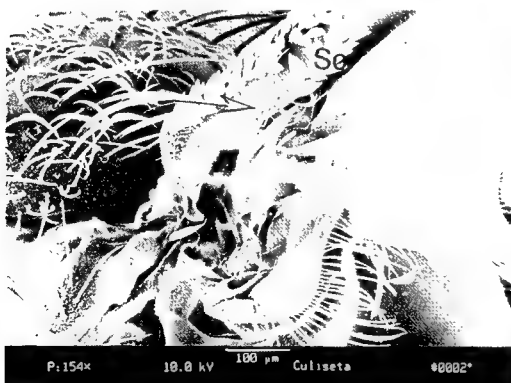


Thorax. Prespiracular setae
absent

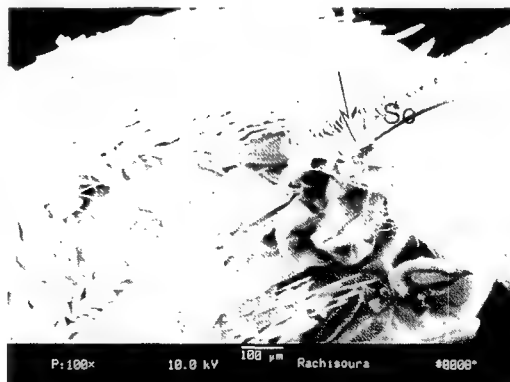


to Page 38

Wing. Base of vein Sc with a patch
of setae on ventral side

*Culiseta* (in part)

Wing. Base of vein Sc without a patch
of setae on ventral side

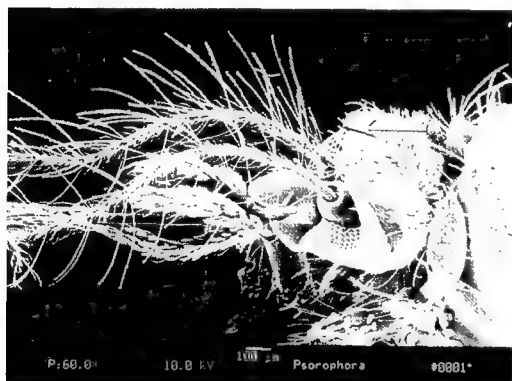


to Page 37

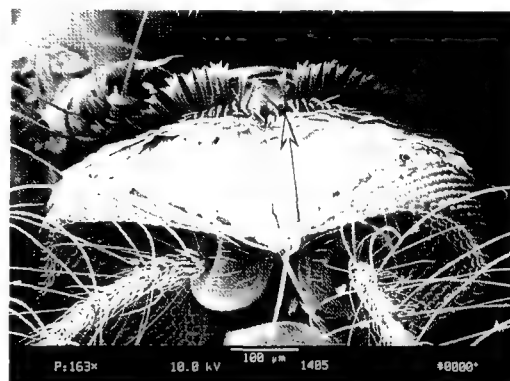
3. (continued)

Page 37

Head. Vertex with erect forked scales numerous, not restricted to occiput

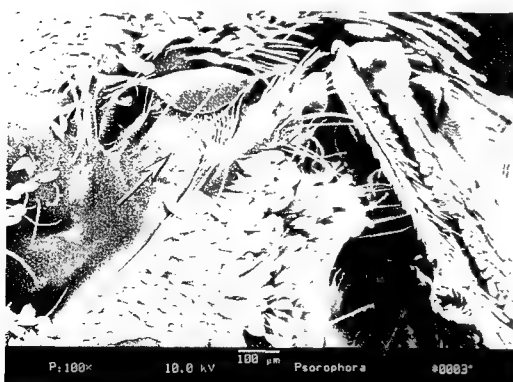


Head. Vertex with erect forked scales not numerous, restricted to occiput, or without erect forked scales



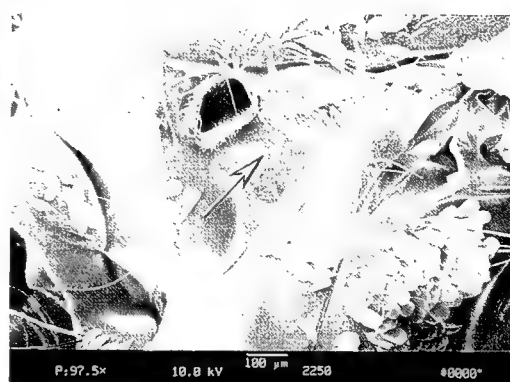
to Page 92

Thorax. Postspiracular setae present



Psorophora (in part)

Thorax. Postspiracular setae absent

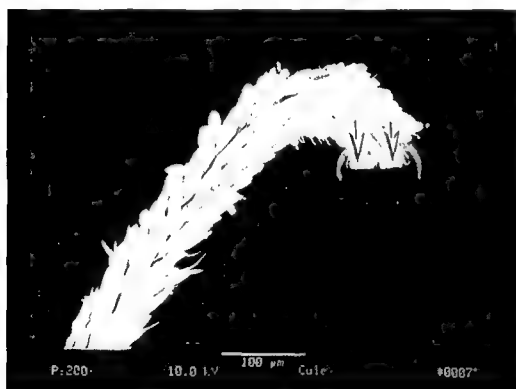


Culiseta (in part)

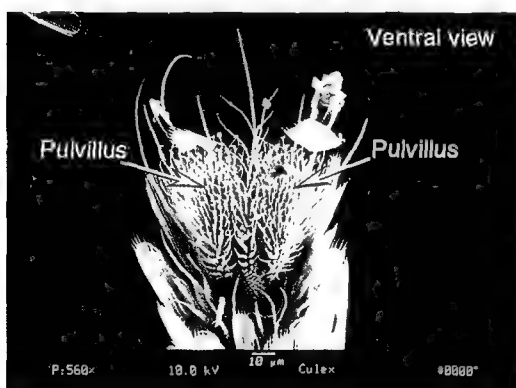
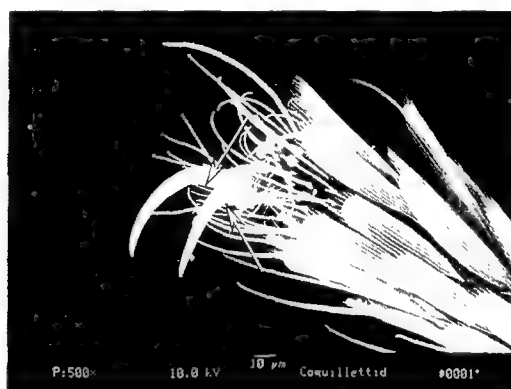
3. (continued)

Page 38

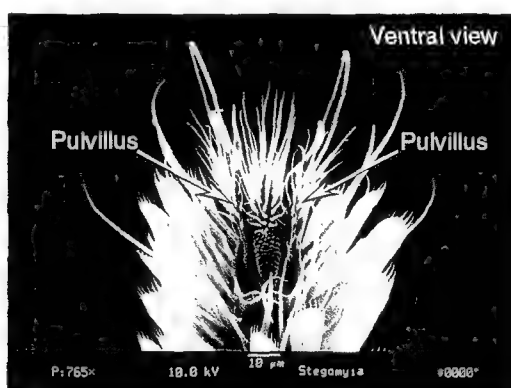
Legs. Pulvillus present, well developed (pad - like)



Legs. Pulvillus absent, or not well developed (hair - like)



to Page 39



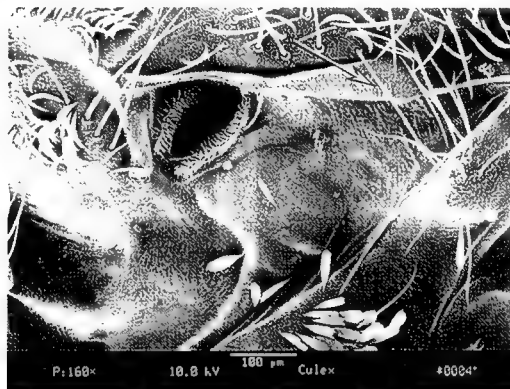
to Page 41

3. (continued)

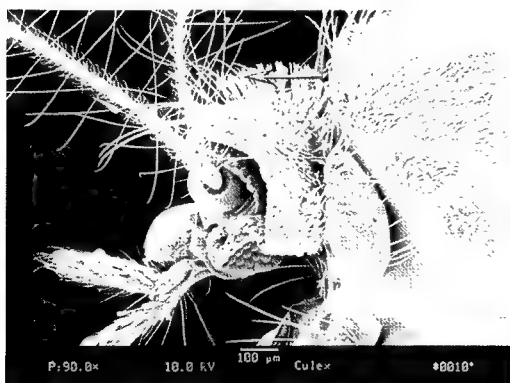
Page 39

**

Thorax. Paratergite without scales

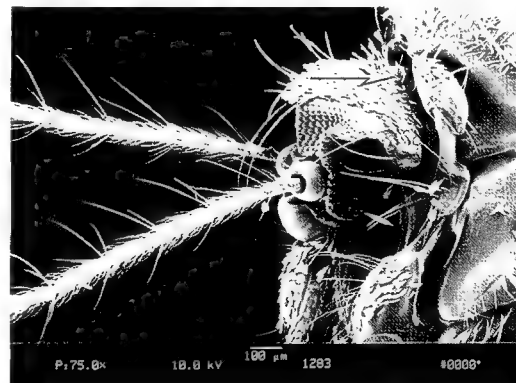


Head. Vertex with erect forked scales numerous, not restricted to occiput



to Page 40a

Head. Vertex with erect forked scales not numerous, restricted to occiput



to Page 40b

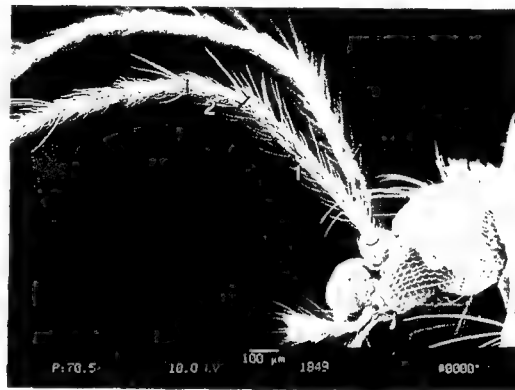
3. (continued)

Page 40a

Head. Antenna with flagellomere 1
about as long as flagellomere 2

*Culex*

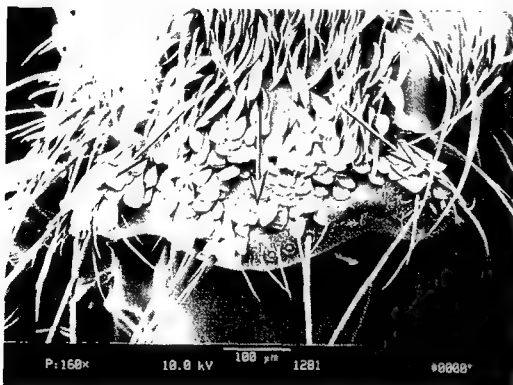
Head. Antenna with flagellomere 1
much longer than flagellomere 2

*Deinocerites*

Page 40b

★ ★ 1

Thorax. Scutellum with all broad
scales



★ ★ 2

Thorax. Postspiracular setae
absent

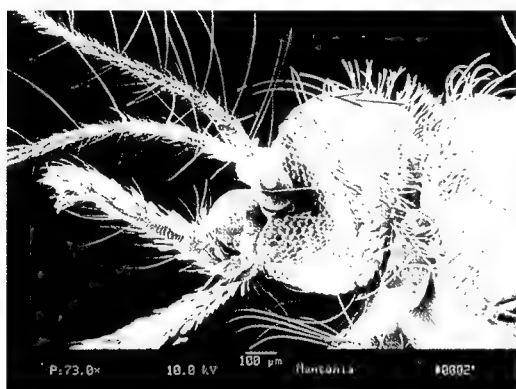


Galindomyia
Galindomyia leei

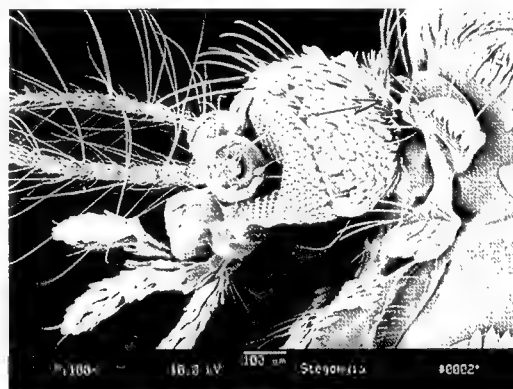
3. (continued)

Page 41

Head. Vertex with erect forked scales numerous, not restricted to occiput

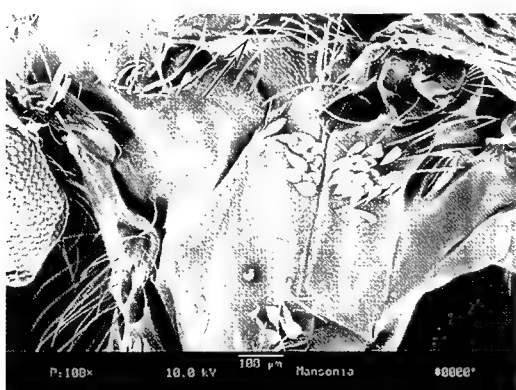


Head. Vertex with erect forked scales not numerous, restricted or not restricted to occiput, or without erect forked scales



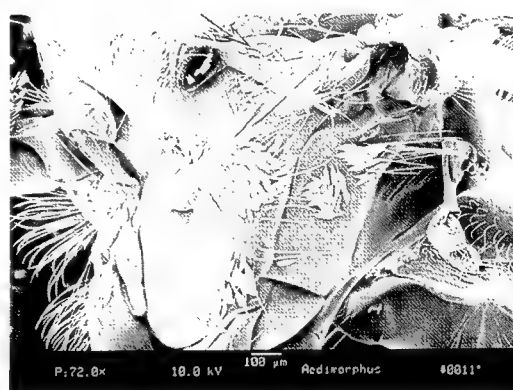
to Page 56

Thorax. Paratergite without scales



to Page 42

Thorax. Paratergite with scales

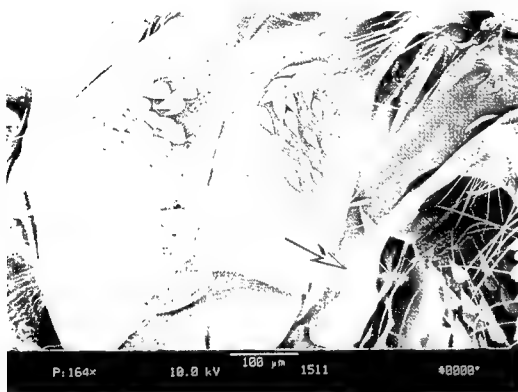


to Page 55c

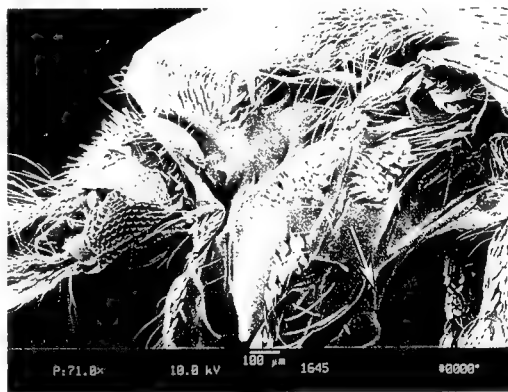
3. (continued)

Page 42

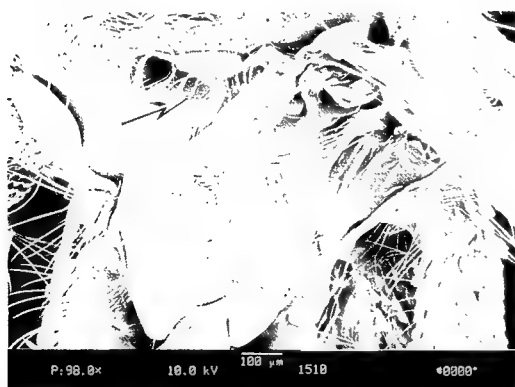
Thorax. Metameron with short setae



Thorax. Metameron without short setae



**

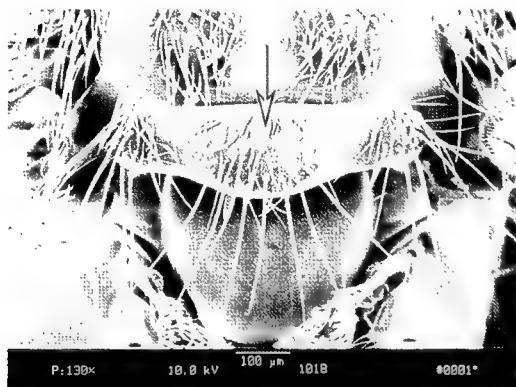
Thorax. Postspiracular setae
present*Ochlerotatus* (in part)
(*Geoskusea*)

to Page 43

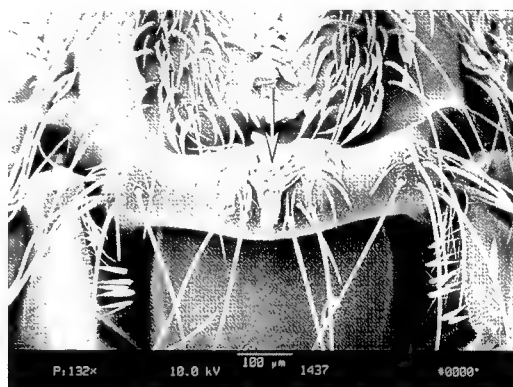
3. (continued)

Page 43

Thorax. Scutellum with all narrow scales on midlobe

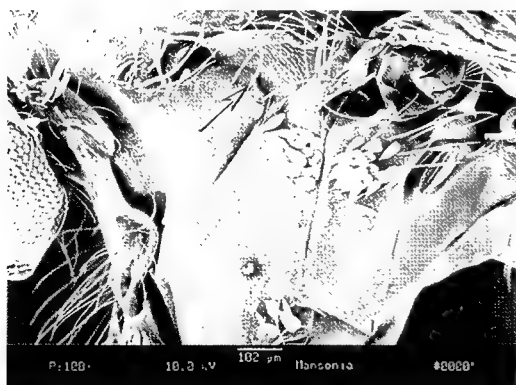


Thorax. Scutellum with all, or at least a few broad scales on midlobe



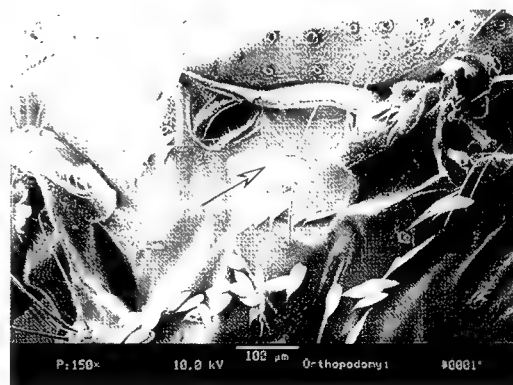
to Page 50b

Thorax. Postspiracular setae present



to Page 44

Thorax. Postspiracular setae absent

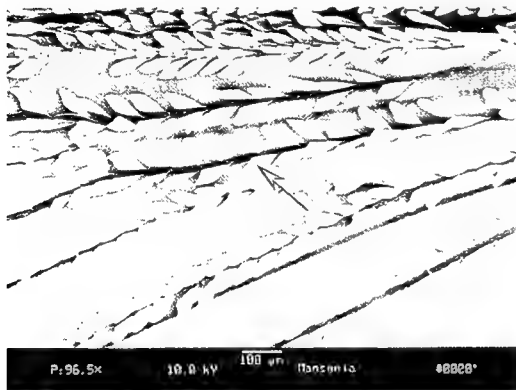


to Page 49

3. (continued)

Page 44

Wing. Most plume scales very broad and asymmetrical



Wing. Plume scales narrow, and not asymmetrical



to Page 45b

**

Thorax. Subspiracular area without scales



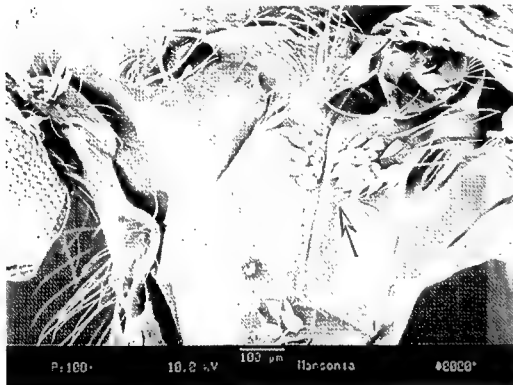
to Page 45a

3. (continued)

Page 45a

**

Thorax. Lower mesepimeral setae present

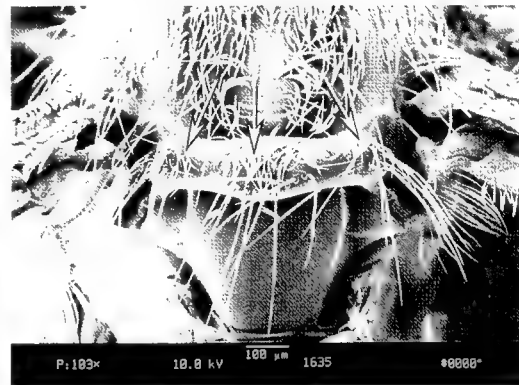


Mansonia

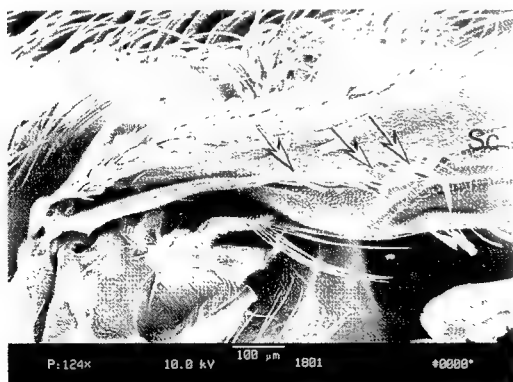
Page 45b

**

Thorax. Scutellum with all narrow scales

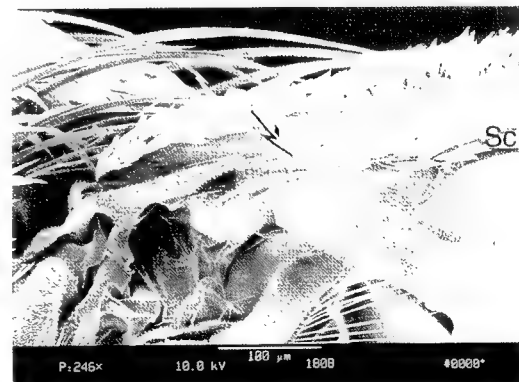


Wing. Base of vein Sc with a patch of setae on ventral side



Ochlerotatus (in part)
(*Nothoskusea*) *chathamicus*

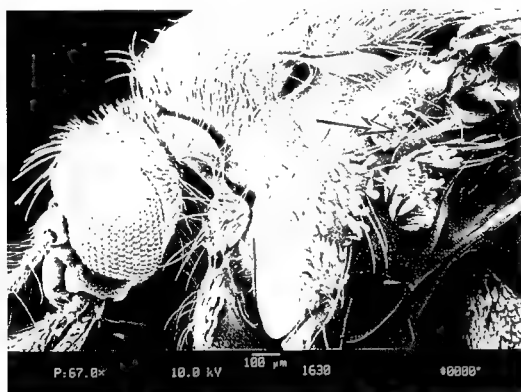
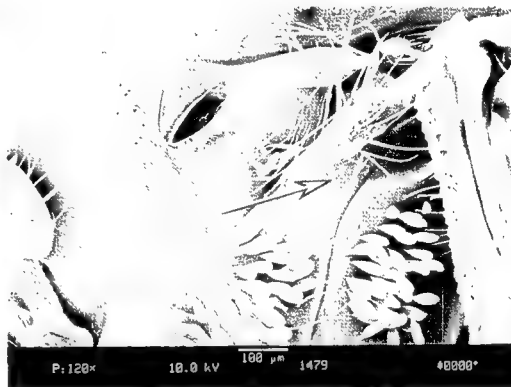
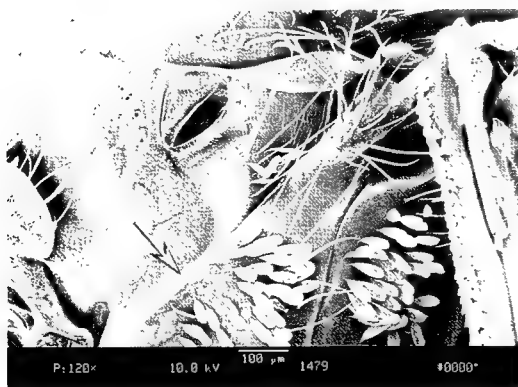
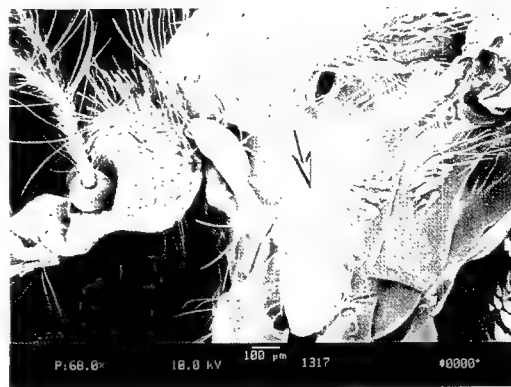
Wing. Base of vein Sc without a patch of setae on ventral side



to Page 46

3. (continued)

Page 46

Thorax. Lower prealar scale patch
presentThorax. Lower prealar scale patch
absent*Ochlerotatus* (in part)
(*Ochlerotatus*)Thorax. Subspiracular area with
scalesThorax. Subspiracular area without
scales

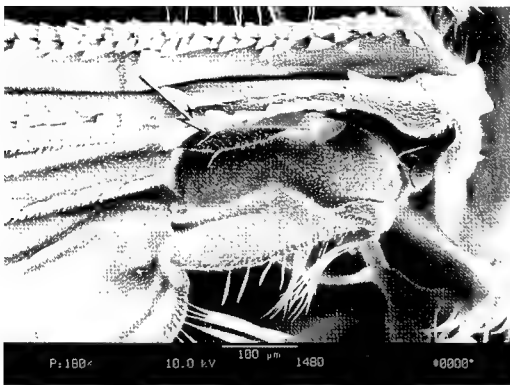
to Page 47a

to Page 47b

3. (continued)

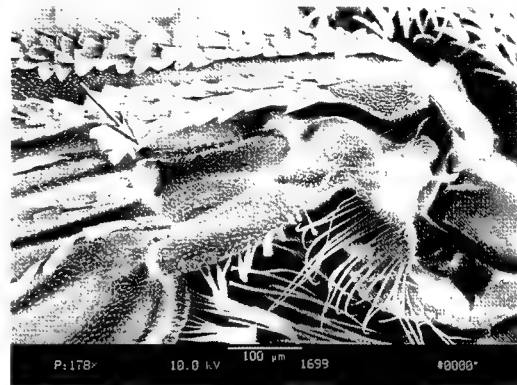
Page 47a

Wing. Remigial setae present



Aedes (in part)
(*Edwardsaedes*)

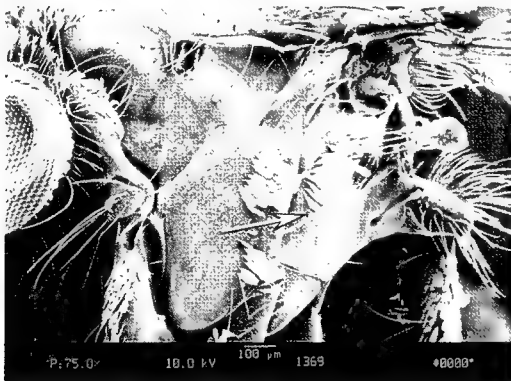
Wing. Remigial setae absent



Aedes (in part)
(*Neomelaniconion*)

Page 47b

Thorax. Lower mesepimeral setae present



to Page 48a

Thorax. Lower mesepimeral setae absent

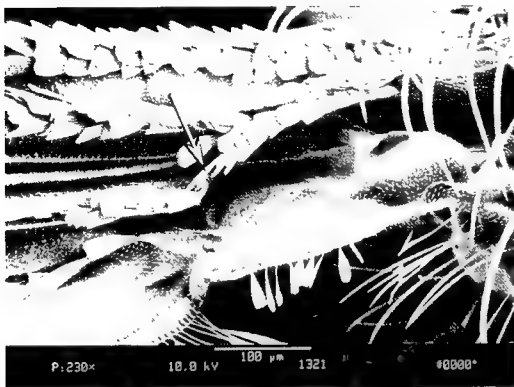


to Page 48b

3. (continued)

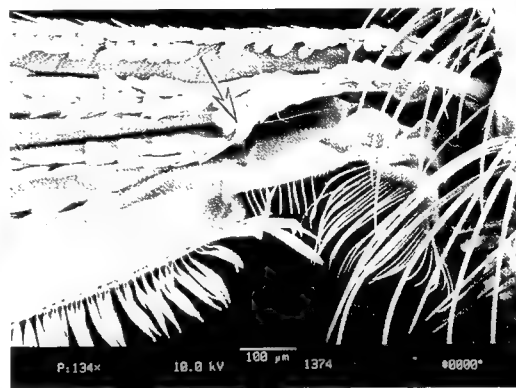
Page 48a

Wing. Remigial setae present



Aedes (in part)
(*Isoaedes*) *cavaticus*

Wing. Remigial setae absent

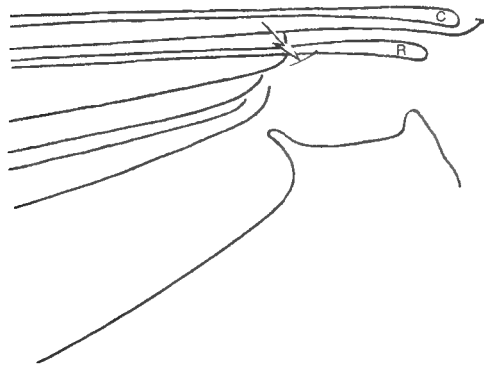


Coquillettidia (in part)

Page 48b

**

Wing. Remigial setae present



Ochlerotatus (in part)
(*Levua*)

3. (continued)

Page 49

Thorax. Lower mesepimeral setae present



Thorax. Lower mesepimeral setae absent



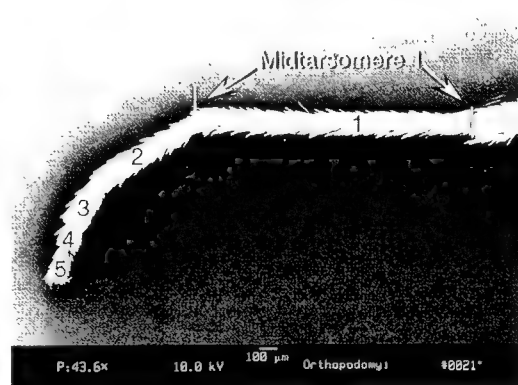
**

Thorax. Subspiracular area without scales



**

Leg. Midtarsomere 1 distinctly longer than tarsomeres 2-5 combined



Coquillettia (in part)

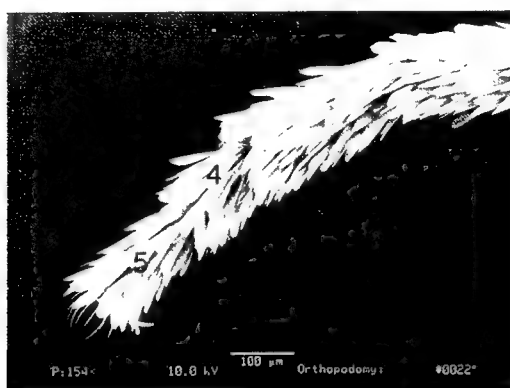
to Page 50a

3. (continued)

Page 50a

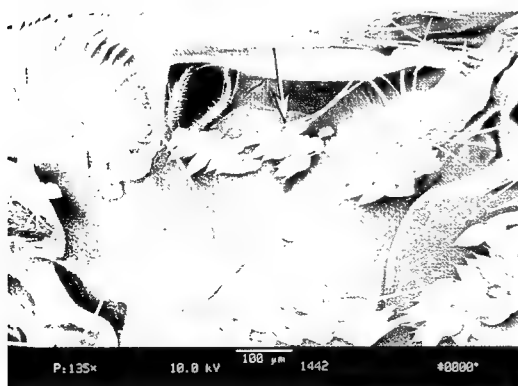
**

Leg. Midtarsomere 4 shorter than
midtarsomere 5

*Orthopodomyia*

Page 50b

Thorax. Postspiracular setae
present



to Page 51

Thorax. Postspiracular setae
absent

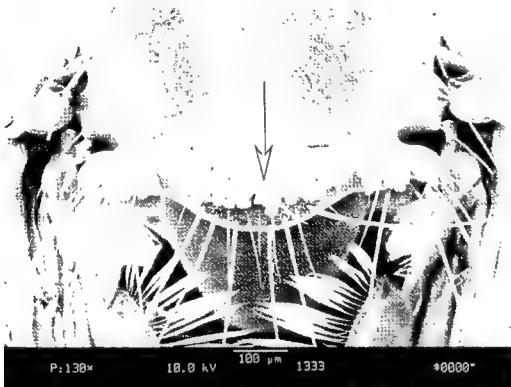


to Page 53b

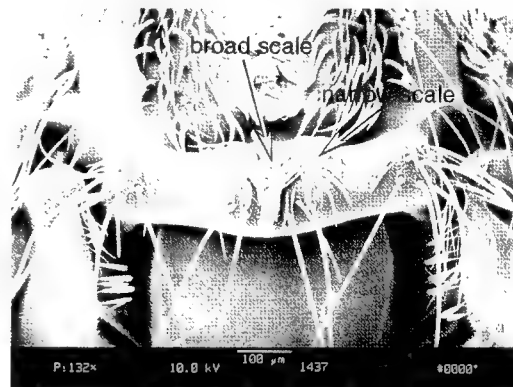
3. (continued)

Page 51

Thorax. Scutellum with all broad scales on midlobe

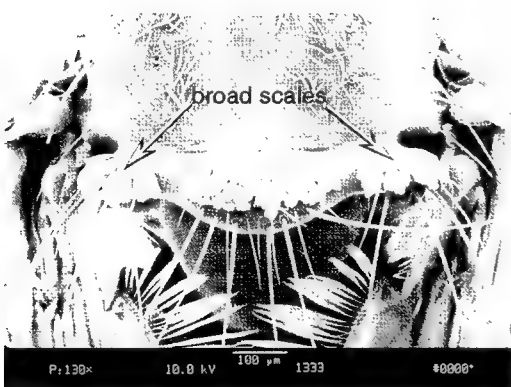


Thorax. Scutellum with narrow and broad scales on midlobe



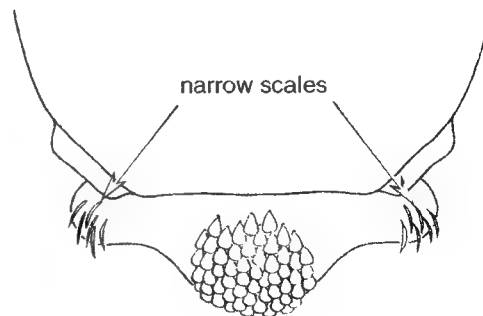
to Page 52

Thorax. Scutellum with all broad scales on lateral lobes



Aedes (in part)
(*Aedimorphus*) in part

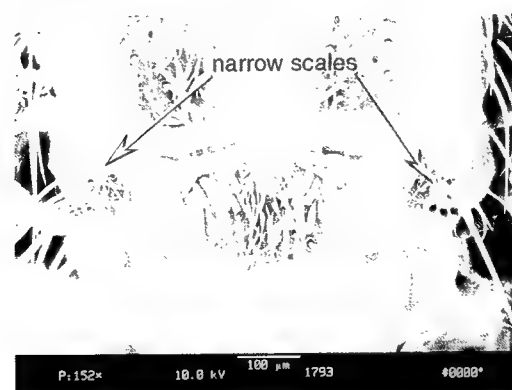
Thorax. Scutellum with narrow scales on lateral lobes



Ochlerotatus (in part)
(*Chaetocruimyia*) in part

3. (continued)

Page 52

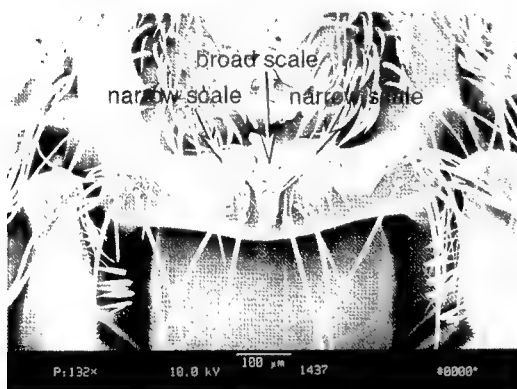
******Thorax. Lower prealar scale patch
present******Thorax. Scutellum with all narrow
scales on lateral lobes

to Page 53a

3. (continued)

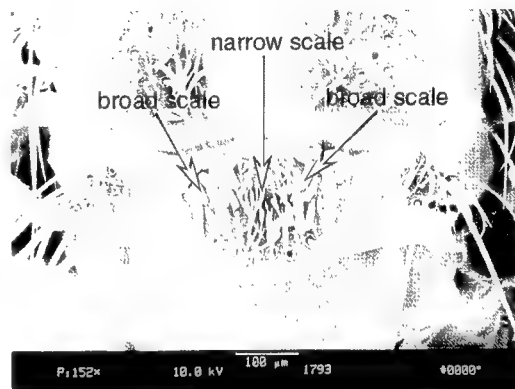
Page 53a

Thorax. Scutellum with broad scales in middle, and with narrow scales laterally on midlobe



Ochlerotatus (in part)
(*Aztecaedes*) *ramirezi*

Thorax. Scutellum with narrow scales in middle, and with broad scales laterally on midlobe



Ochlerotatus (in part)
(*Finlaya*) in part

Page 53b

Thorax. Subspiracular area with scales



to Page 54a

Thorax. Subspiracular area without scales



to Page 54b

3. (continued)

Page 54a

**

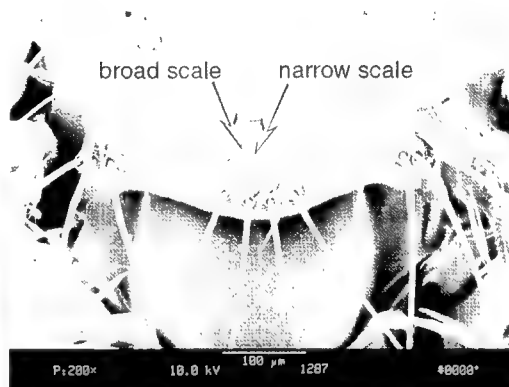
Thorax. Scutellum with all broad scales on midlobe



Page 54b

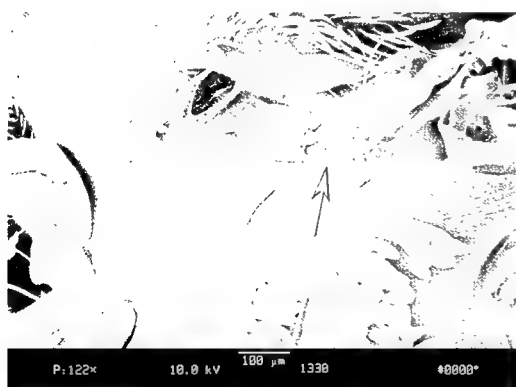
**

Thorax. Scutellum with narrow and broad scales on midlobe



**

Thorax. Lower prealar scale patch present



**

Thorax. Lower mesepimeral setae present



to Page 55a

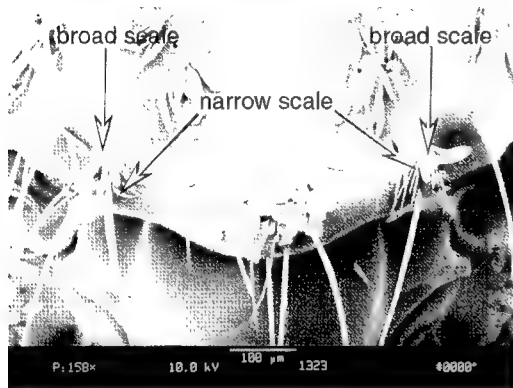
to Page 55b

3. (continued)

Page 55a

**

Thorax. Scutellum with broad and narrow scales on lateral lobes

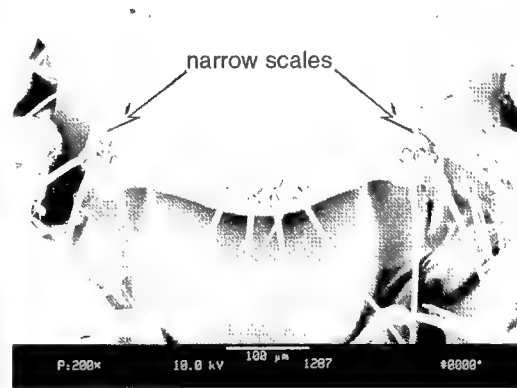


Ochlerotatus (in part)
(*Kompia*) *purpureipes*

Page 55b

**

Thorax. Scutellum with all narrow scales on lateral lobes



Ayurakitia

Page 55c

**

Thorax. Postspiracular setae present

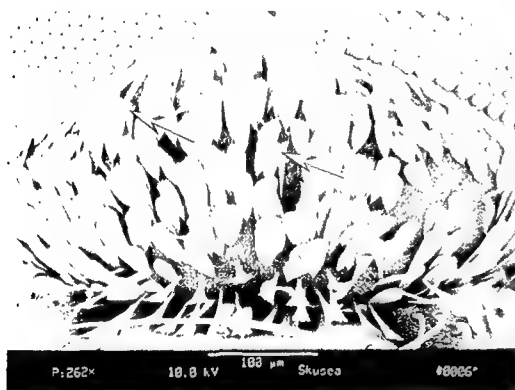


to Page 105

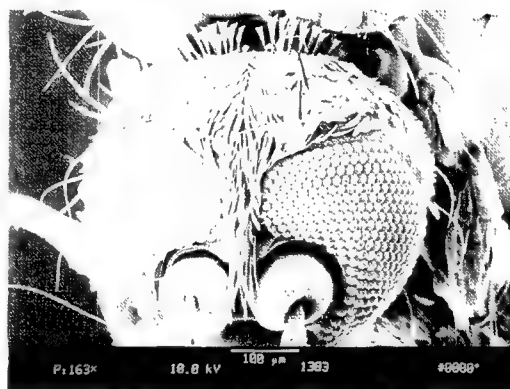
3. (continued)

Page 56

Head. Vertex with erect forked scales
not numerous, not restricted to occiput



Head. Vertex with erect forked scales
not numerous, restricted to occiput, or
without erect forked scales



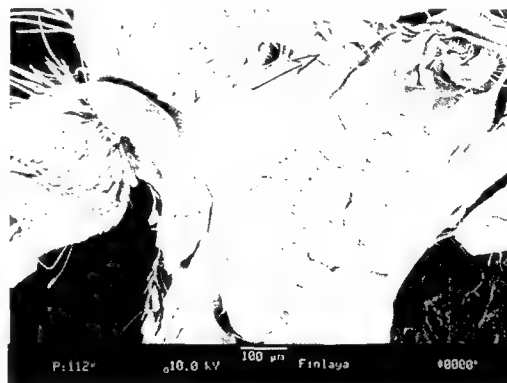
to Page 69b

Thorax. Paratergite without scales



to Page 57

Thorax. Paratergite with scales



to Page 63b

3. (continued)

Page 57

Thorax. Postspiracular setae
absent

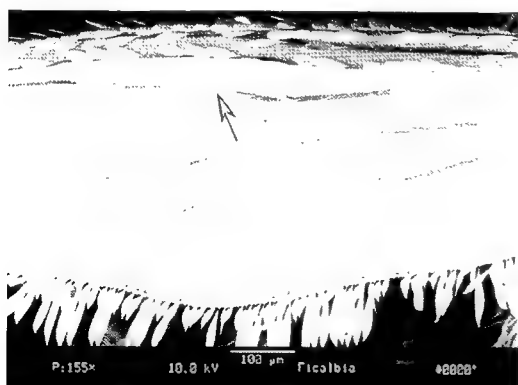


Thorax. Postspiracular setae
present



**

Wing. Plume scales all broad



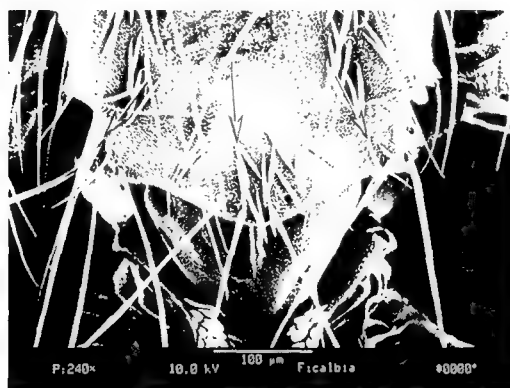
to Page 58b

to Page 58a

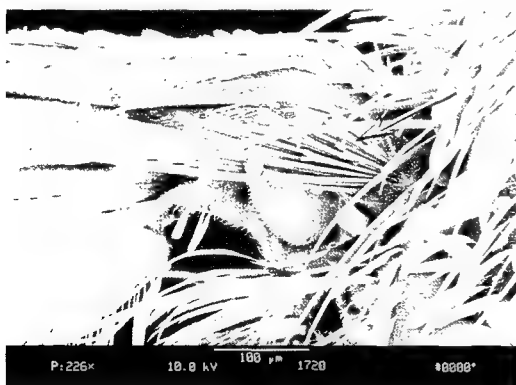
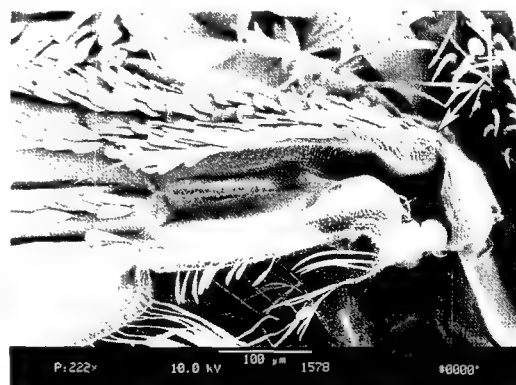
3. (continued)

Page 58a

**

Thorax. Scutellum with all narrow
scales*Ficalbia*

Page 58b

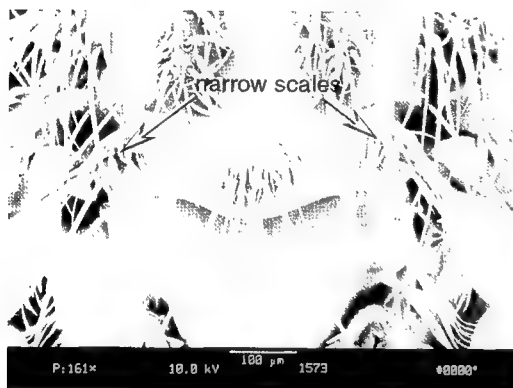
Wing. Base of vein R with a fan-like
tuft of long forked scales on dorsal
sideWing. Base of vein R without a
fan-like tuft of long forked scales on
dorsal side*Ochlerotatus* (in part)
(*Chaetocruimyia*) in part

to Page 59

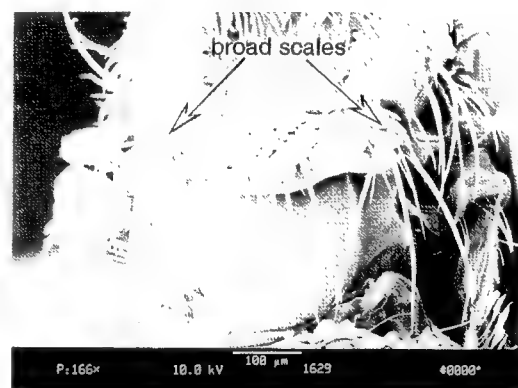
3. (continued)

Page 59

Thorax. Scutellum with all narrow scales on lateral lobes

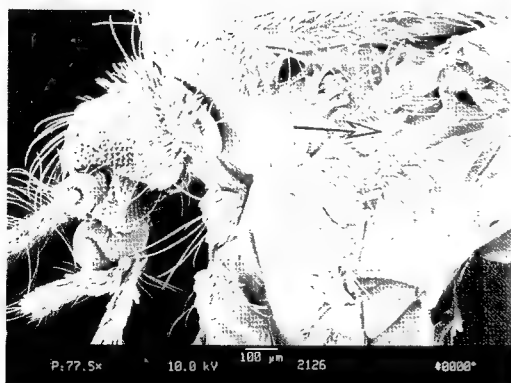


Thorax. Scutellum with all broad scales on lateral lobes



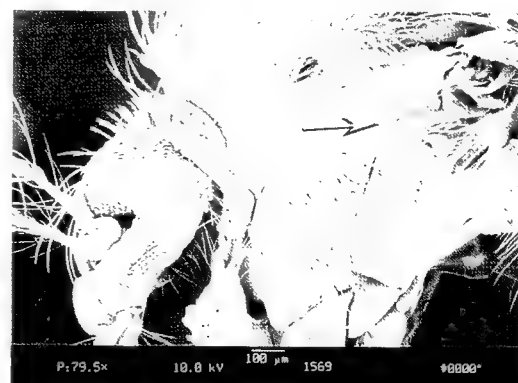
to Page 61

Thorax. Lower prealar scale patch present



to Page 60a

Thorax. Lower prealar scale patch absent



to Page 60b

3. (continued)

Page 60a

**

Thorax. Subspiracular area with
scales

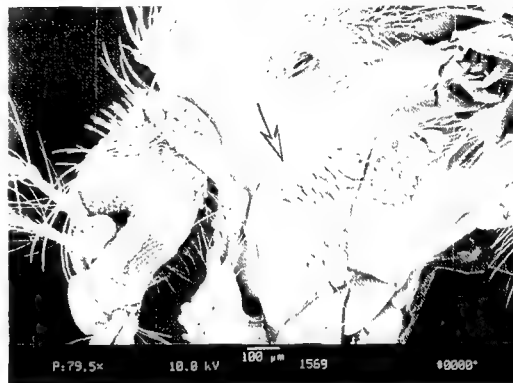


Ochlerotatus (in part)
Atropalpus Group

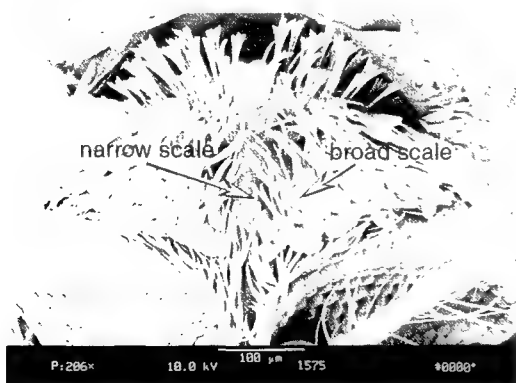
Page 60b

**

Thorax. Subspiracular area without
scales

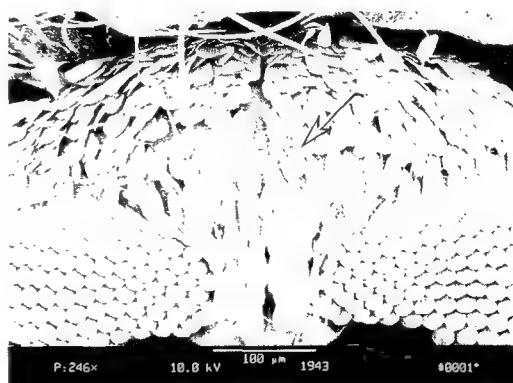


Head. Vertex with narrow and broad
decumbent scales



Aedes (in part)
(*Paraedes*) in part

Head. Vertex with broad, flat
decumbent scales



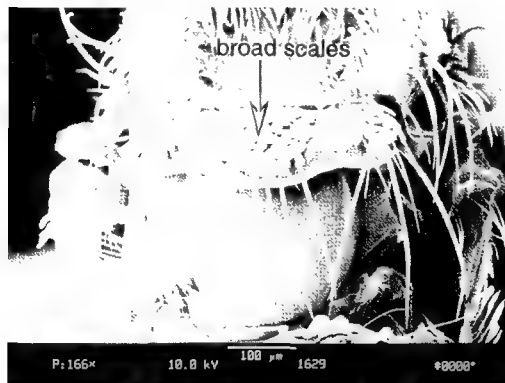
Verrallina (in part)

3. (continued)

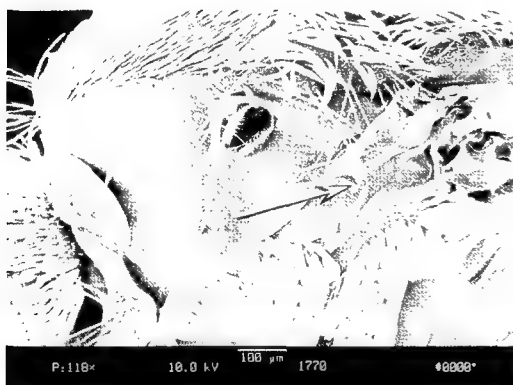
Page 61

**

Thorax. Scutellum with all broad scales on midlobe

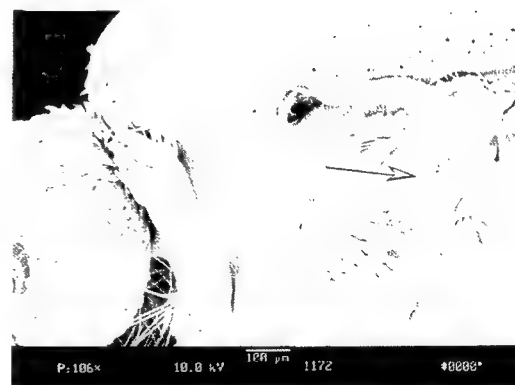


Thorax. Lower prealar scale patch present



Ochlerotatus (in part)
(*Finlaya*) in part

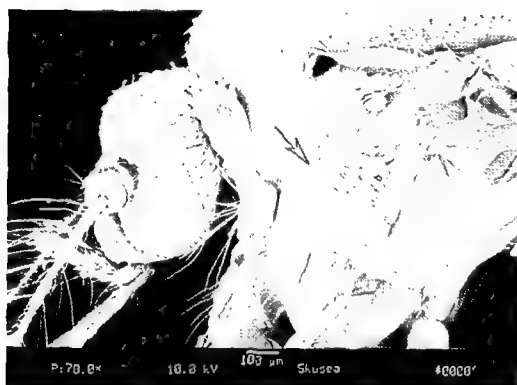
Thorax. Lower prealar scale patch absent



to Page 62

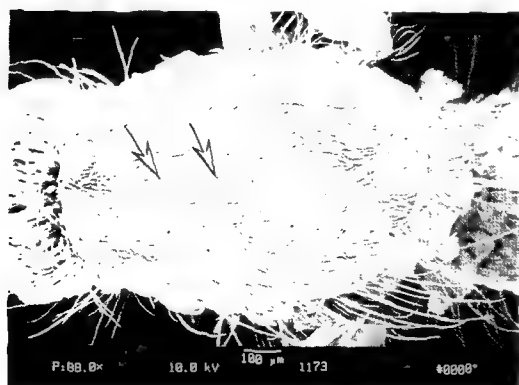
3. (continued)

Page 62

Thorax. Subspiracular area with
scalesThorax. Subspiracular area without
scales

**

Thorax. Acrostichal setae present



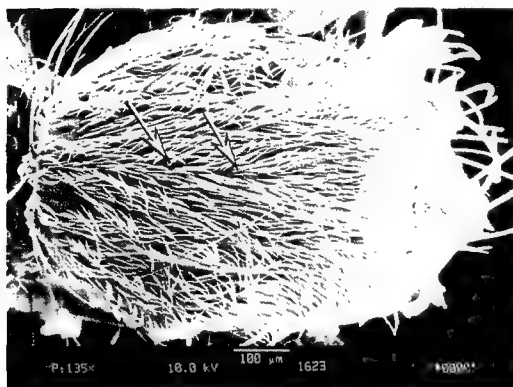
to Page 63a

Aedes (in part)
(*Skusea*)

3. (continued)

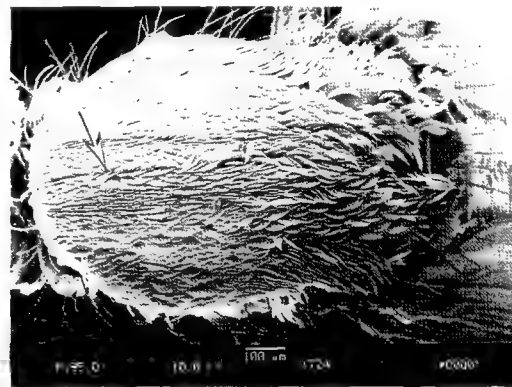
Page 63a

Thorax. Acrostichal setae present



Aedes (in part)
(*Lorrainea*) in part

Thorax. Acrostichal setae absent

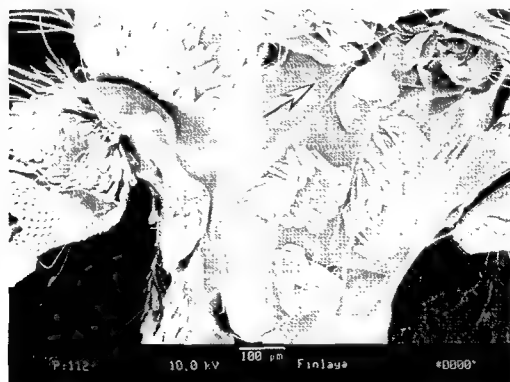


Ochlerotatus (in part)
(*Finlaya*) in part

Page 63b

**

Thorax. Postspiracular setae
present

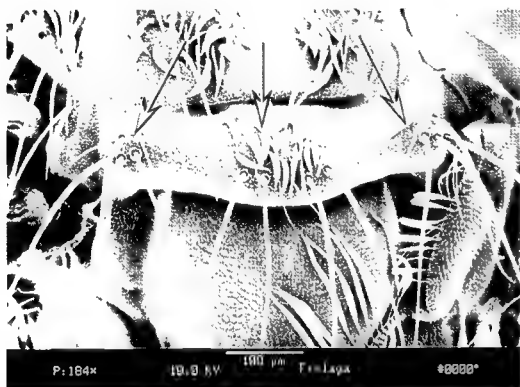


to Page 64

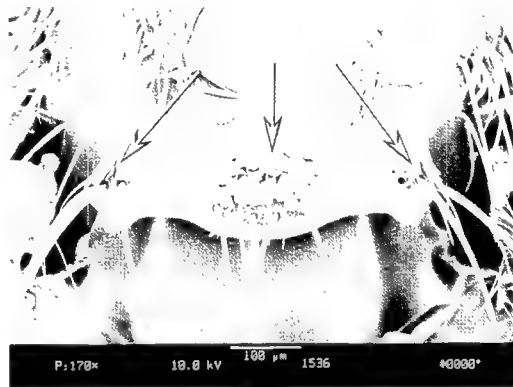
3. (continued)

Page 64

Thorax. Scutellum with all narrow
scales



Thorax. Scutellum with all, or at least
some broad scales on midlobe



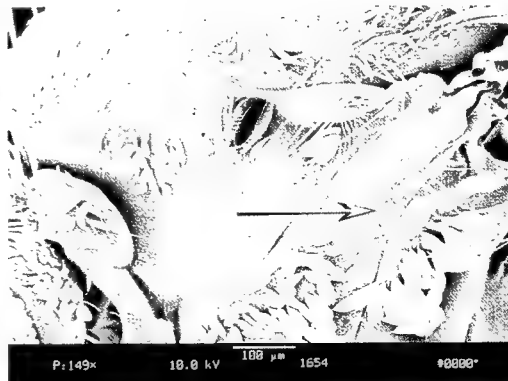
to Page 66b

Thorax. Lower prealar scale patch
present



to Page 65

Thorax. Lower prealar scale patch
absent

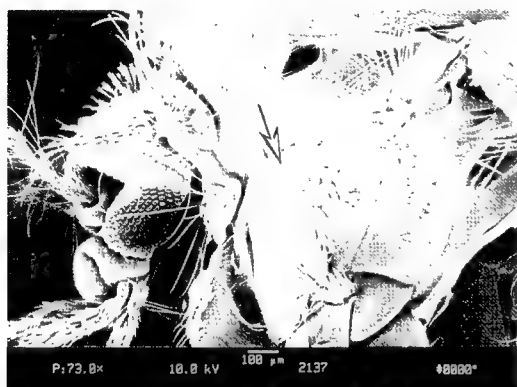


Aedes (in part)
(*Paraedes*) in part

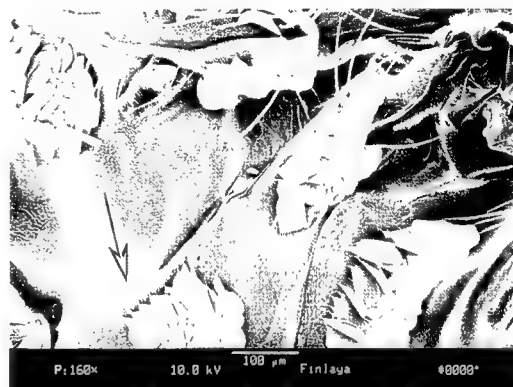
3. (continued)

Page 65

Thorax. Subspiracular area with
scales

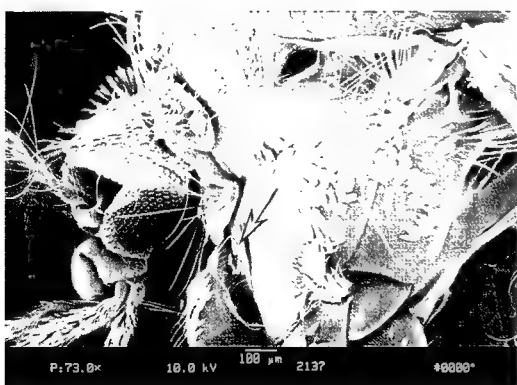


Thorax. Subspiracular area without
scales



to Page 66a

Thorax. Postprocoxal membrane
with scales



Ochlerotatus (in part)
Fluviatilis Group

Thorax. Postprocoxal membrane
without scales



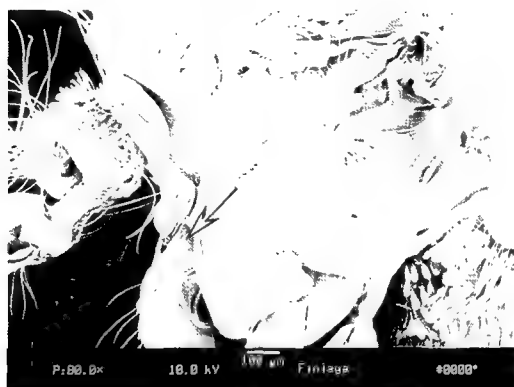
Ochlerotatus (in part)
(*Finlaya*) in part

3. (continued)

Page 66a

**

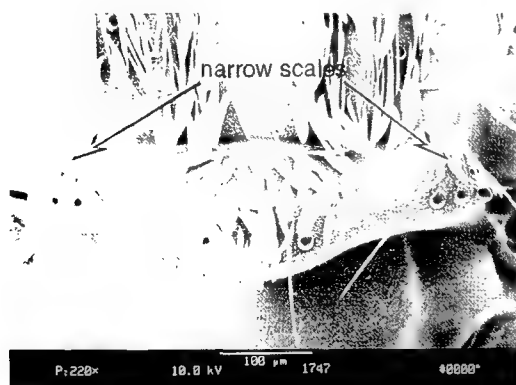
Thorax. Postprocoxal membrane
without scales



Ochlerotatus (in part)
(*Finlaya*) in part

Page 66b

Thorax. Scutellum with narrow scales
on lateral lobes



to Page 67

Thorax. Scutellum with all broad
scales on lateral lobes



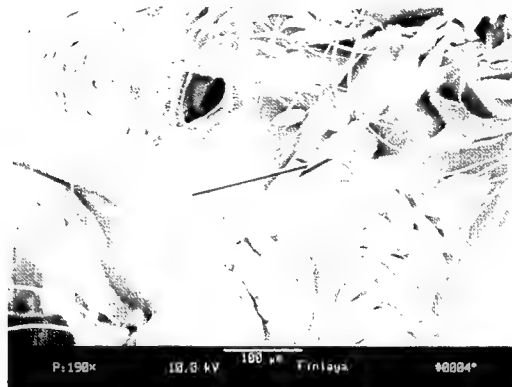
to Page 68

3. (continued)

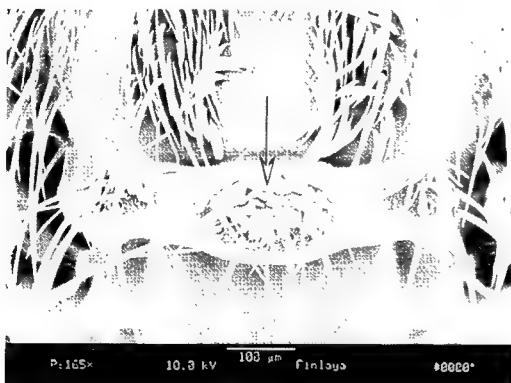
Page 67

**

Thorax. Lower prealar scale patch present

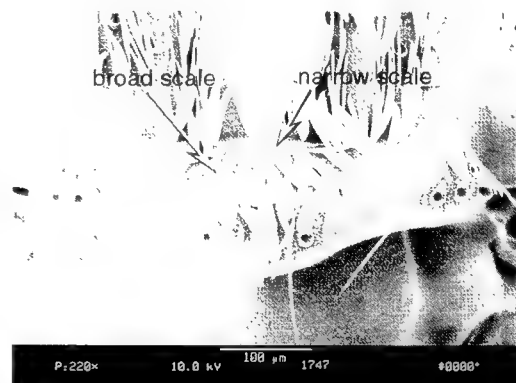


Thorax. Scutellum with all broad scales on midlobe



Ochlerotatus (in part)
(*Finlaya*) in part

Thorax. Scutellum with broad and narrow scales on midlobe



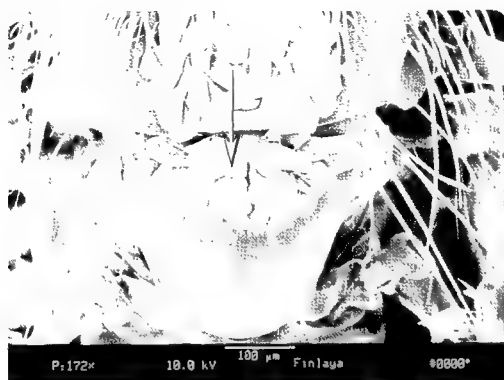
Ochlerotatus (in part)
(*Howardina*) in part

3. (continued)

Page 68

**

Thorax. Scutellum with all broad
scales on midlobe



Thorax. Lower prealar scale patch
present



Ochlerotatus (in part)
(*Zavortinkius*)

Thorax. Lower prealar scale patch
absent

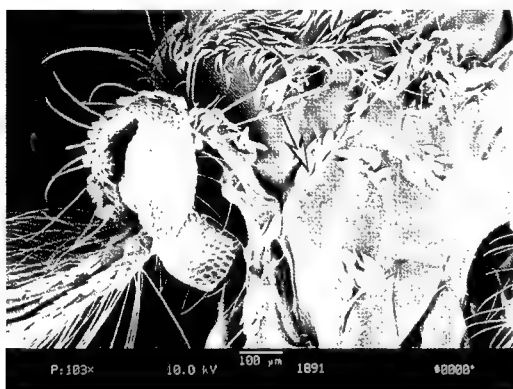


to Page 69a

3. (continued)

Page 69a

Thorax. Subspiracular area with
scales



Aedes (in part)
(*Diceromyia*) in part

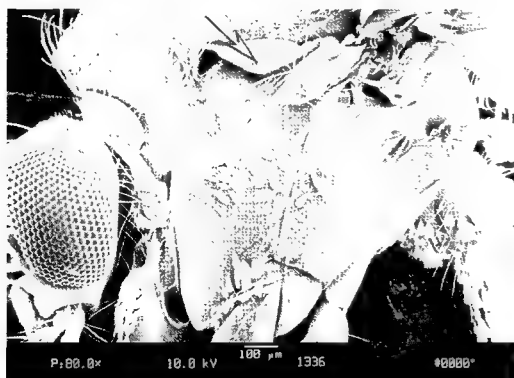
Thorax. Subspiracular area without
scales



Ochlerotatus (in part)
(*KenKnightia*)

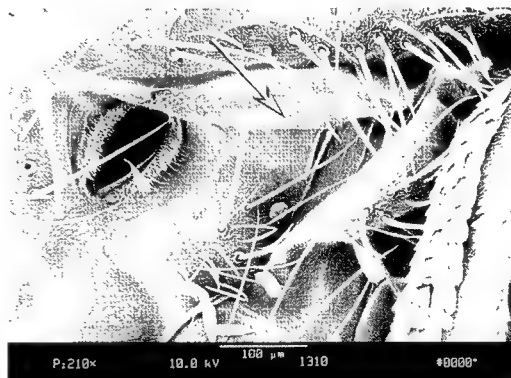
Page 69b

Thorax. Paratergite without scales



to Page 70

Thorax. Paratergite with scales



to Page 81b

3. (continued)

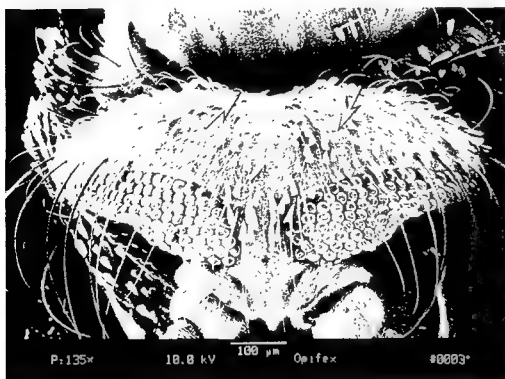
Page 70

**

Thorax. Postspiracular setae
present

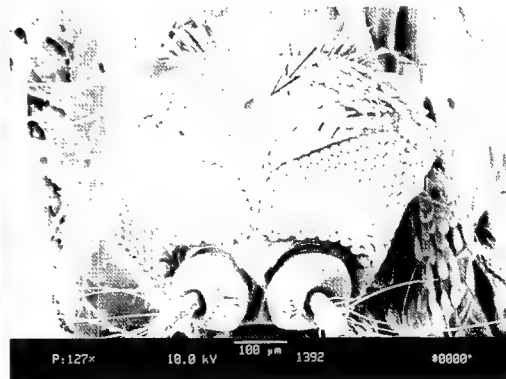


Head. Vertex and occiput: with
numerous short setae



Opifex
Opifex fuscus

Head. Vertex and occiput without
numerous short setae



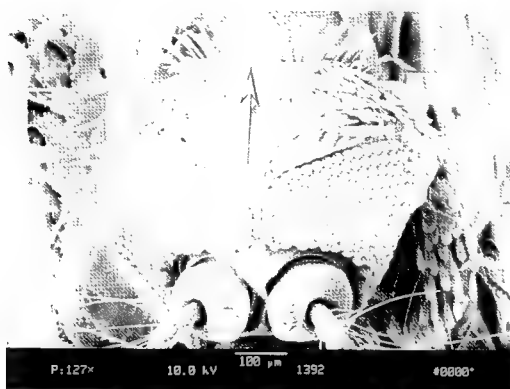
to Page 71

3. (continued)

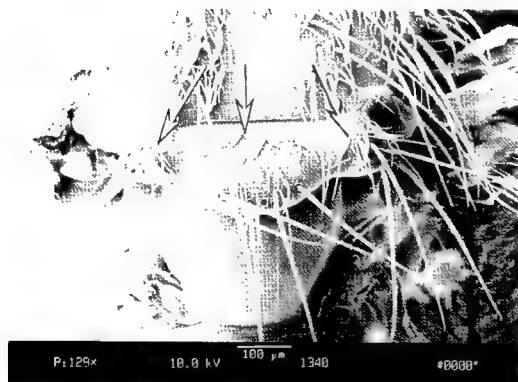
Page 71

**

Head. Vertex with erect forked scales
not numerous, restricted to occiput

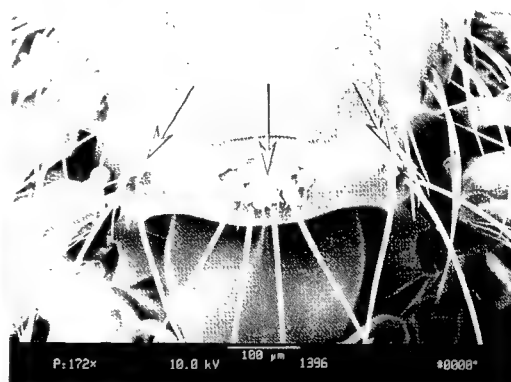


Thorax. Scutellum with all narrow
scales



to Page 72

Thorax. Scutellum with all, or at least
some broad scales on midlobe

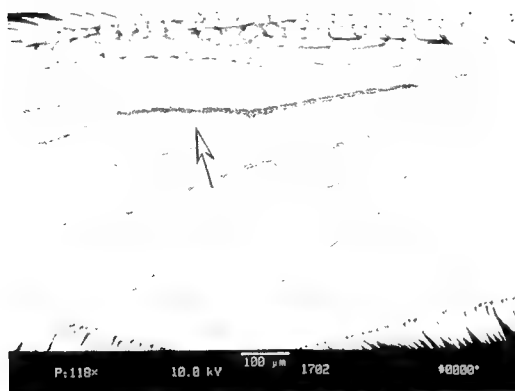


to Page 73b

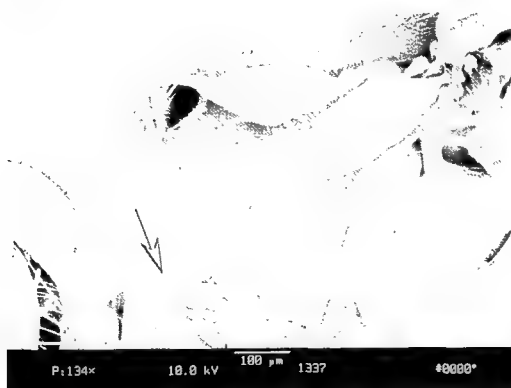
3. (continued)

Page 72

Wing. Plume scales all narrow

******

Thorax. Subspiracular area without scales

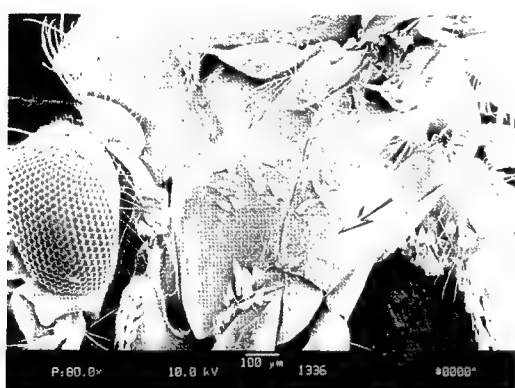


to Page 73a

3. (continued)

Page 73a

Thorax. Lower mesepimeral area
with a patch of fine setae



Verrallina (in part)

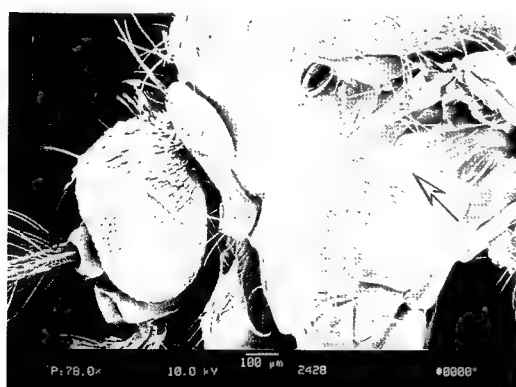
Thorax. Lower mesepimeral area
without a patch of fine setae



Verrallina (in part)

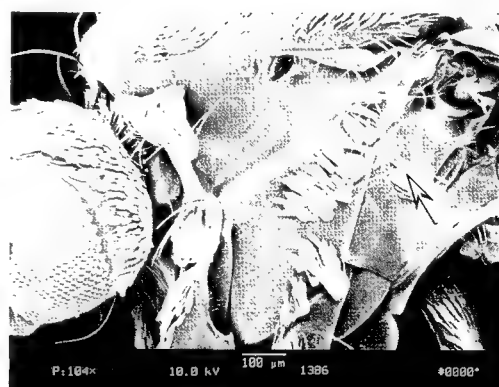
Page 73b

Thorax. Mesepimeron without scale
patch



to Page 74

Thorax. Mesepimeron with scale
patch

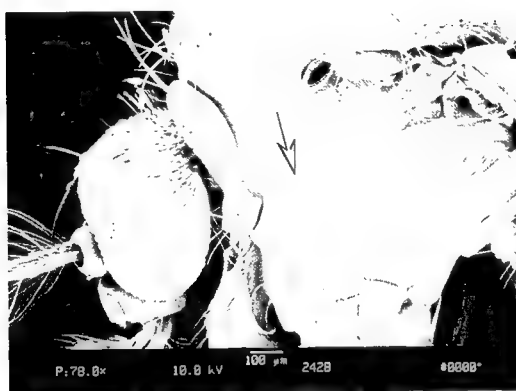


to Page 76

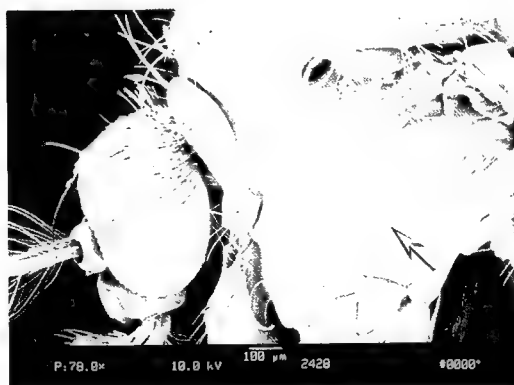
3. (continued)

Page 74

**

Thorax. Subspiracular area
without scales

**

Thorax. Lower mesepimeral setae
absent

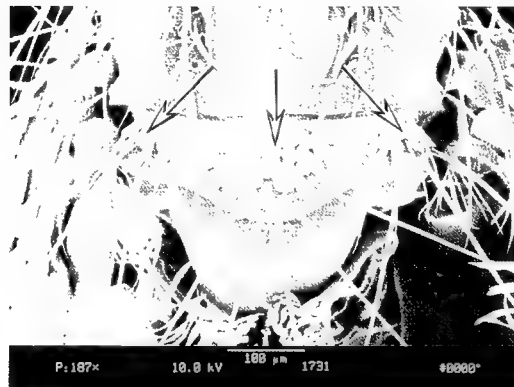
to Page 75

3. (continued)

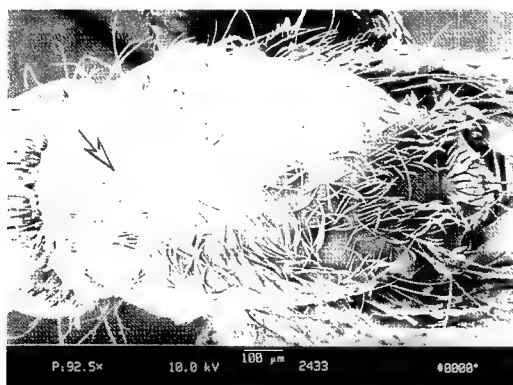
Page 75

**

Thorax. Scutellum with all broad flat scales

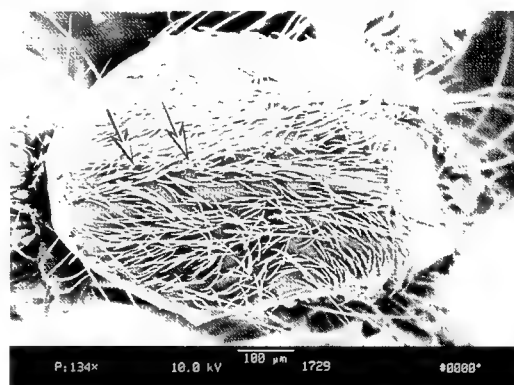


Throax. Acrostichal setae absent



Aedes hortator

Thorax. Acrostichal setae present

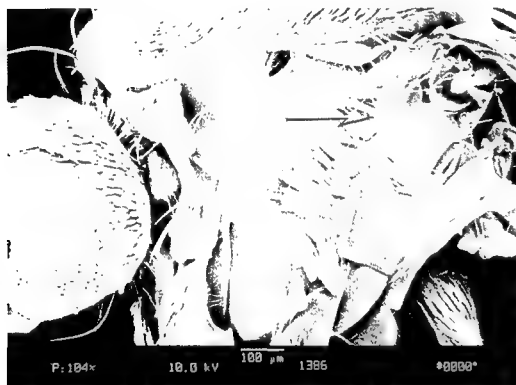


Ochlerotatus (in part)
(*Rhinoskusea*)

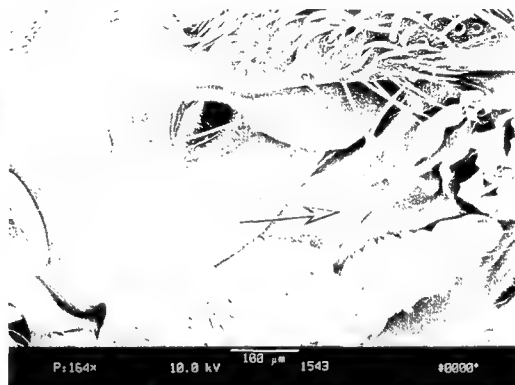
3. (continued)

Page 76

Thorax. Lower prealar scale patch
present

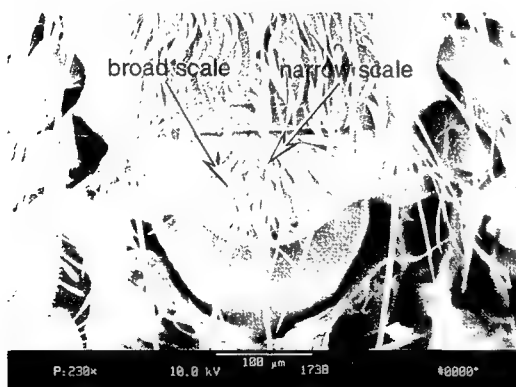


Thorax. Lower prealar scale patch
absent



**

Thorax. Scutellum with narrow scales
in middle, and with broad flat scales
laterally on midlobe



to Page 77

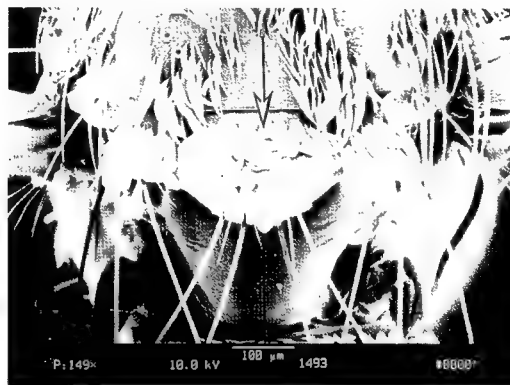
Ochlerotatus (in part)
(*Howardina*) in part

3. (continued)

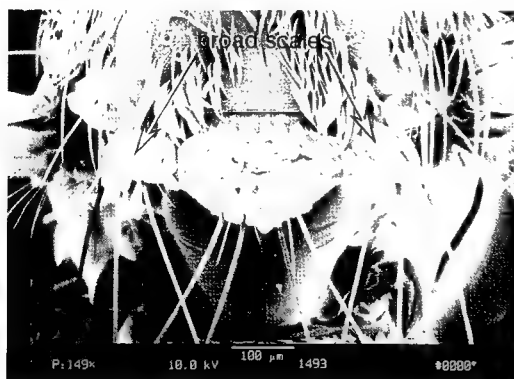
Page 77

**

Thorax. Scutellum with all broad
scales on midlobe

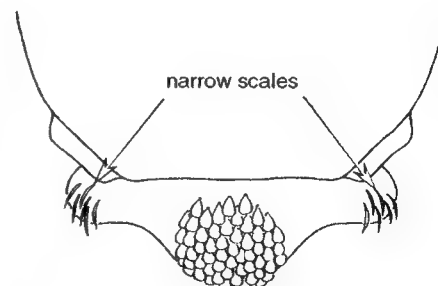


Thorax. Scutellum with all broad
scales on lateral lobes



to Page 78

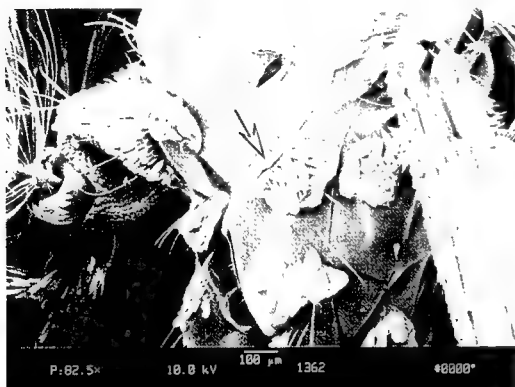
Thorax. Scutellum with all narrow
curved scales on lateral lobes



to Page 81a

3. (continued)

Page 78

Thorax. Subspiracular area with
scalesThorax. Subspiracular area without
scales

to Page 79

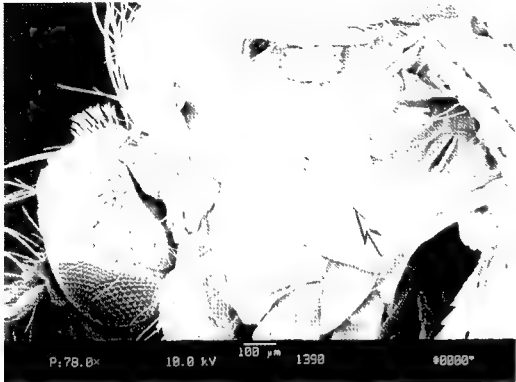
**

Thorax. Lower mesepimeral setae
absent*Aedes* (in part)
(*Stegomyia*) in part

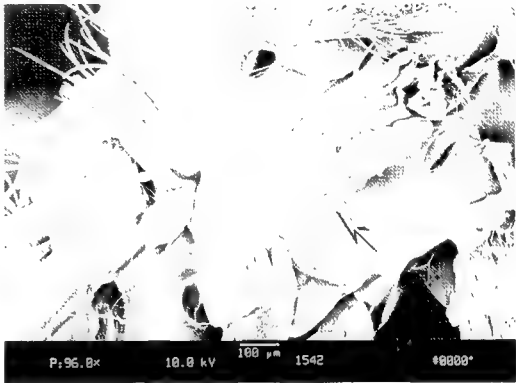
3. (continued)

Page 79

Thorax. Lower mesepimeral setae
present

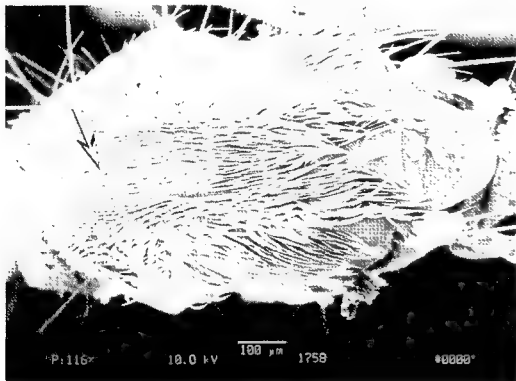


Thorax. Lower mesepimeral setae
absent



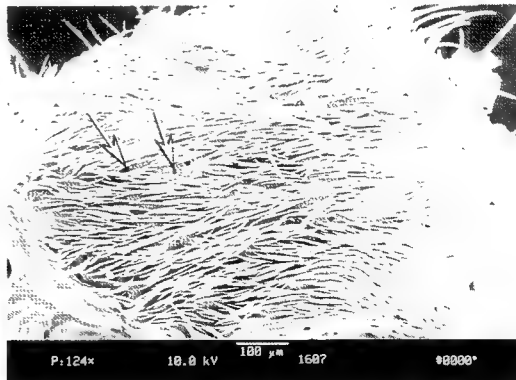
Aedes (in part)
(*Bothaella*)

Thorax. Acrostichal setae absent



to Page 80a

Thorax. Acrostichal setae present



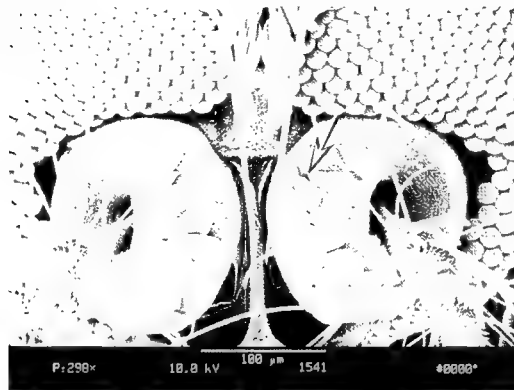
to Page 80b

3. (continued)

Page 80a

**

Head. Pedicel with a patch of white broad overlapping scales on mesal surface

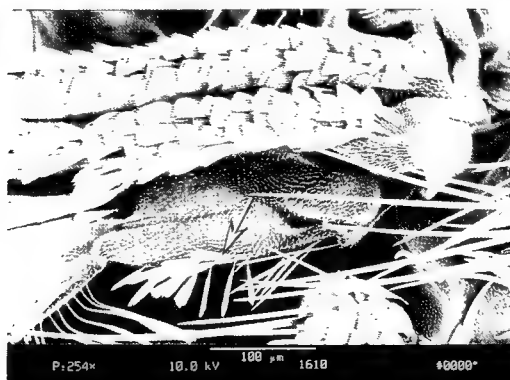


Aedes (in part)
(*Scutomyia*)

Page 80b

**

Wing. Alula with a few broad decumbent scales in addition to the fringe scales



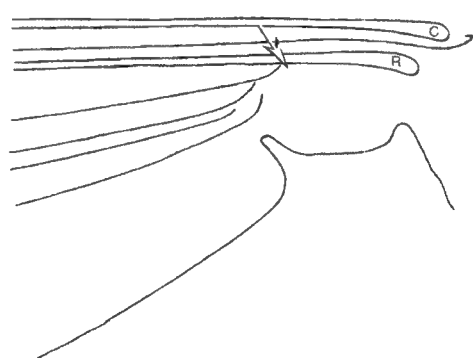
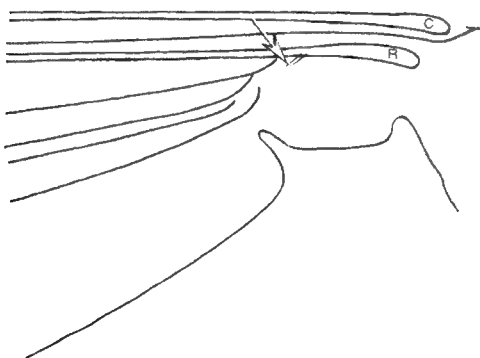
Aedes (in part)
(*Lorrainea*) in part

3. (continued)

Page 81a

Wing. Remigial setae present

Wing. Remigial setae absent



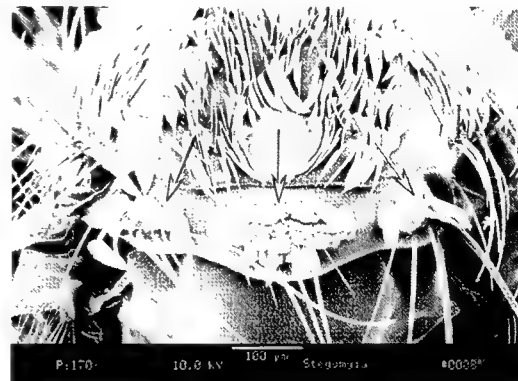
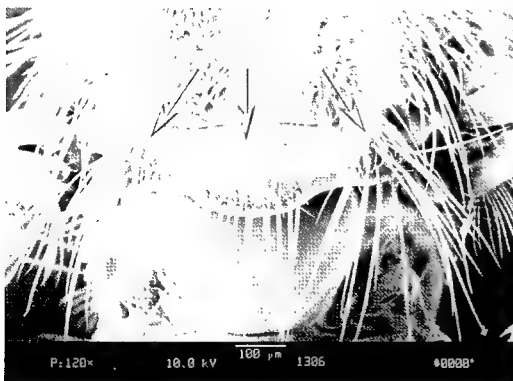
Aedes (in part)
(*Diceromyia*) in part

Aedes (in part)
(*Indusius*) *pulverulentus*

Page 81b

Thorax. Scutellum with all narrow scales

Thorax. Scutellum with all, or at least some broad scales on midlobe

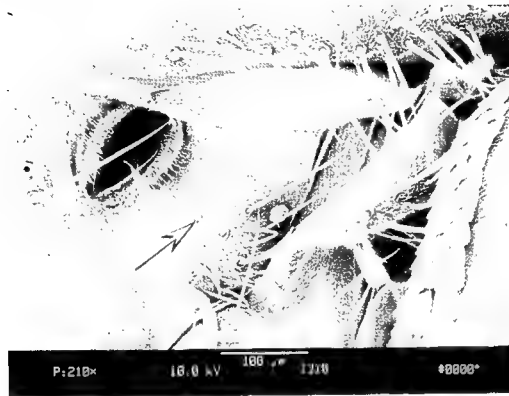
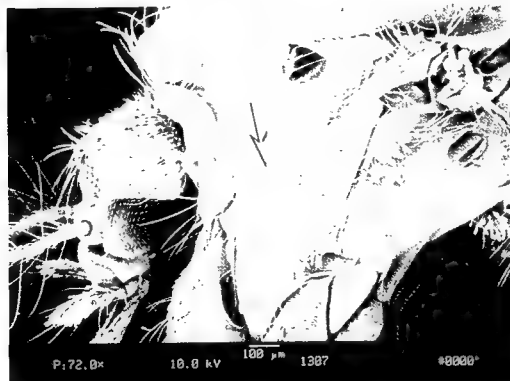


to Page 82

to Page 83

3. (continued)

Page 82

******Thorax. Postspiracular setae
present******Thorax. Subspiracular area without
scales*Verrallina* (in part)

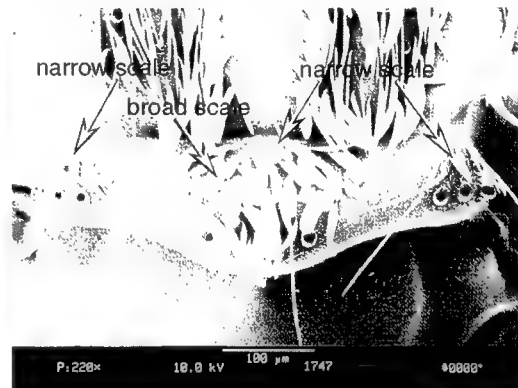
3. (continued)

Page 83

Thorax. Scutellum with all broad scales

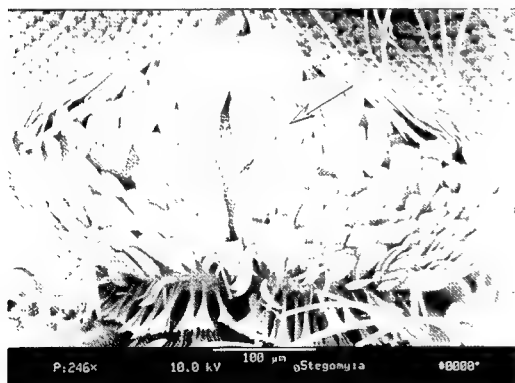


Thorax. Scutellum with broad and narrow scales on midlobe, and with narrow scales on lateral lobes



to Page 86b

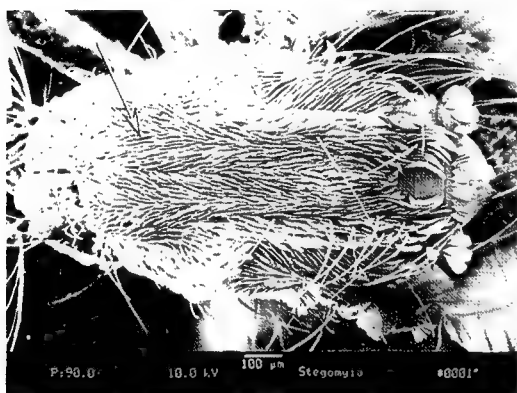
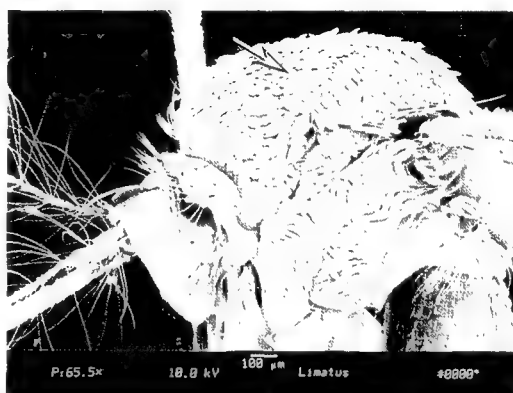
**
Head. Vertex with all broad, flat decumbent scales



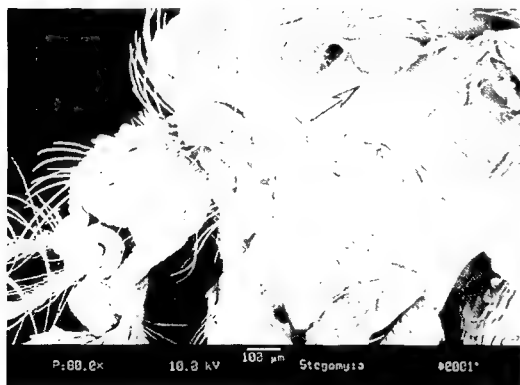
to Page 84

3. (continued)

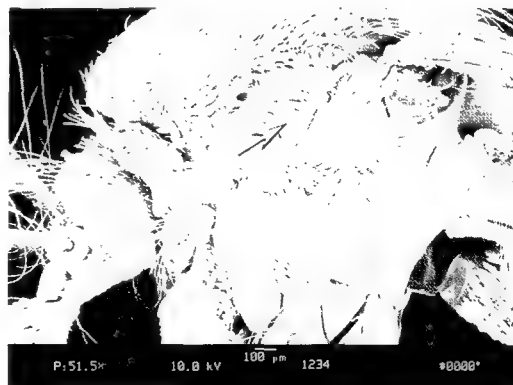
Page 84

Thorax. Scutum with all, or mainly
narrow scalesThorax. Scutum with all broad or
moderately broad flat scales

to Page 91

Thorax. Postspiracular setae
present

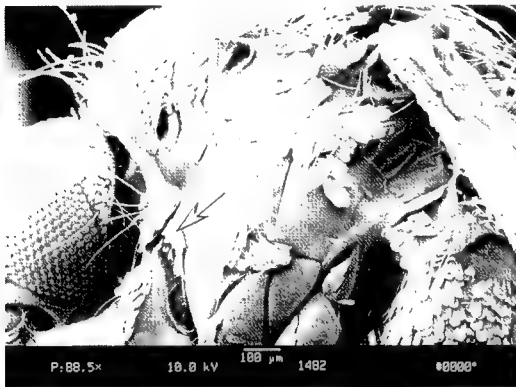
to Page 85

Thorax. Postspiracular setae
absent*Armigeres* (in part)

3. (continued)

Page 85

Thorax. Postprocoxal membrane
with scales

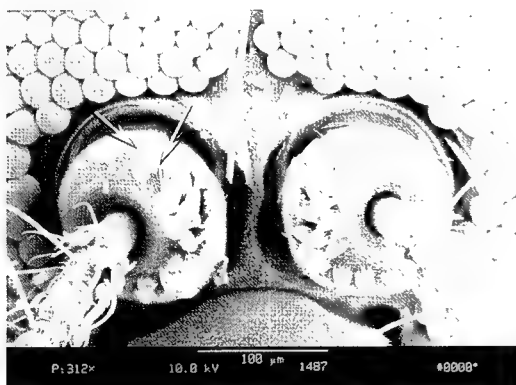


Thorax. Postprocoxal membrane
without scales



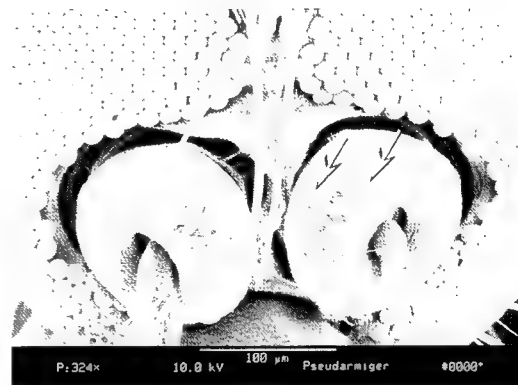
to Page 87

Head. Pedicel with a few setae mixed
with broad scales on mesal surface



to Page 86a

Head. Pedicel with setae and scales
on mesal surface



Aedes (in part)
(*Pseudarmigeres*)

3. (continued)

Page 86a

**

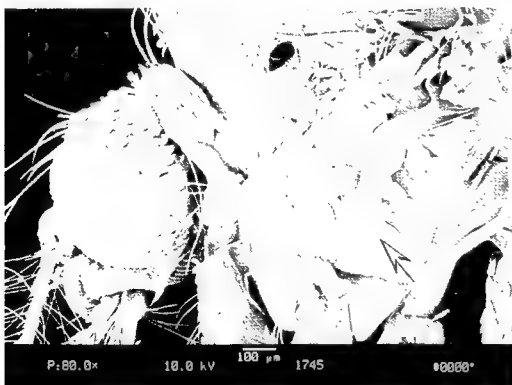
Thorax. Lower mesepimeral setae
present



Aedes (in part)
(*Christophersiomyia*)

** 2

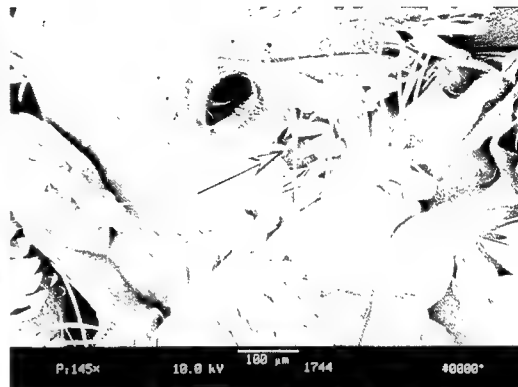
Thorax. Lower mesepimeral setae
absent



Page 86b

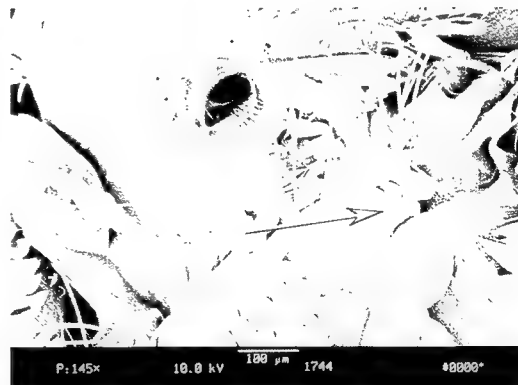
** 1

Thorax. Postspiracular setae
present



** 3

Thorax. Lower prealar scale patch
present



Ochlerotatus (in part)
(*Howardina*) in part

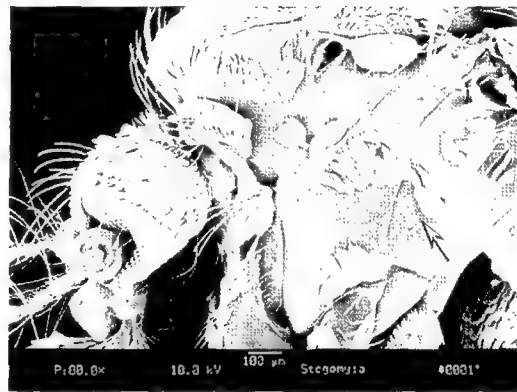
3. (continued)

Page 87

Thorax. Lower mesepimeral setae
present



Thorax. Lower mesepimeral setae
absent



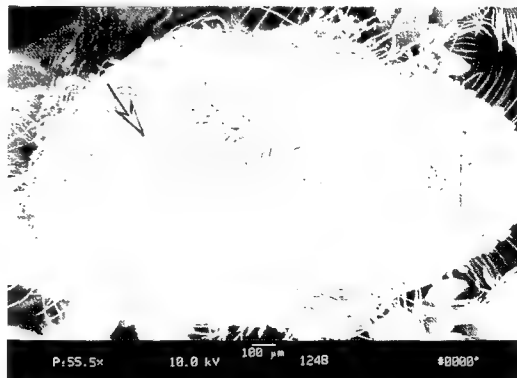
to Page 88c

Thorax. Dorsocentral setae
present



to Page 88a

Thorax. Dorsocentral setae
absent

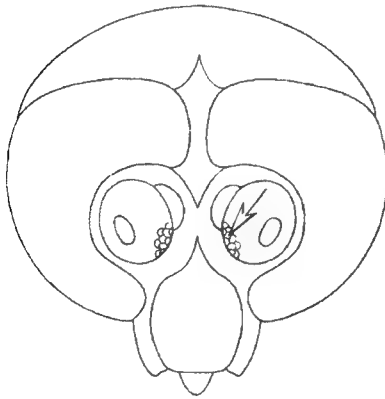


to Page 88b

3. (continued)

Page 88a

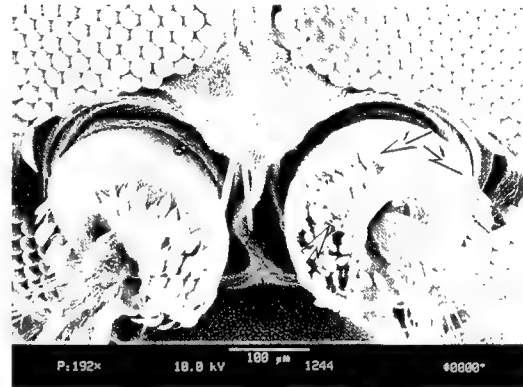
**
Head. Pedicel with a small patch
of white broad overlapping scales on
mesal surface



Aedes (in part)
(*Stegomyia*) in part

Page 88b

**
Head. Pedicel with a few setae mixed
with white broad scales on mesal
and lateral surfaces



Armigeres (in part)

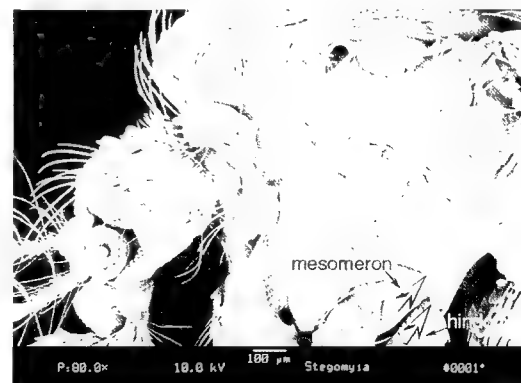
Page 88c

Thorax. Base of mesomeron
level with, or slightly above base of
hindcoxa



to Page 89

Thorax. Base of mesomeron distinctly
above base of hindcoxa



to Page 90b

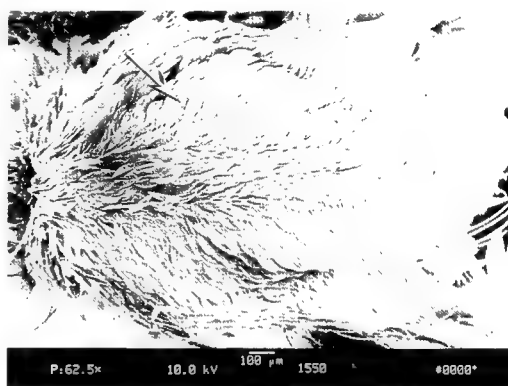
3. (continued)

Page 89

Thorax. Dorsocentral setae
present

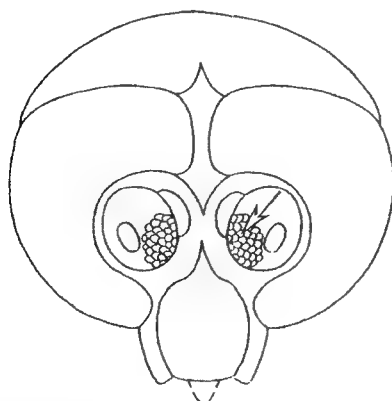


Thorax. Dorsocentral setae
absent



to Page 90a

**
Head. Pedicel with a large patch of
broad scales on mesal surface

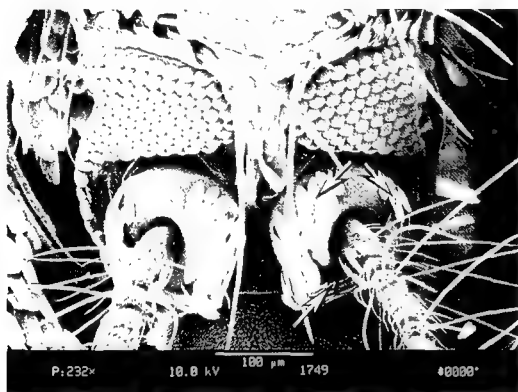


Aedes (in part)
(*Belkinus*) *aurotaeniatus*

3. (continued)

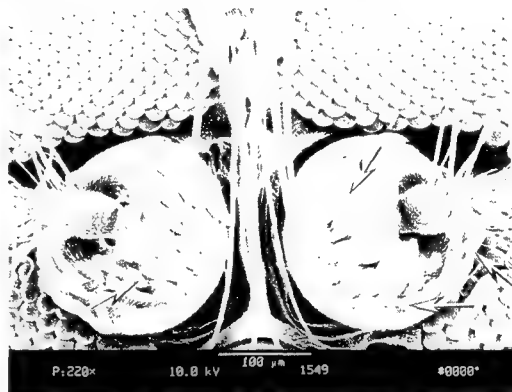
Page 90a

Head. Pedicel with white broad overlapping scales on mesal, ventral and lateral surfaces



Aedes (in part)
(*Stegomyia*) in part

Head. Pedicel with a few setae mixed with white broad scales on mesal, ventral and lateral surfaces

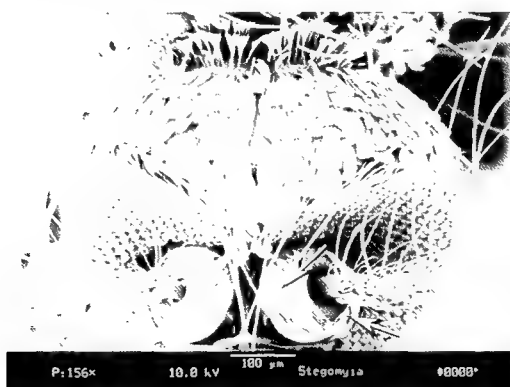


Aedes (in part)
(*Alanstonea*)

Page 90b

★★

Head. Pedicel with white broad overlapping scales on mesal and lateral surfaces



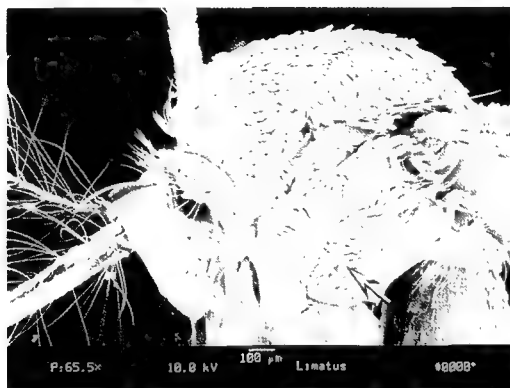
Aedes (in part)
(*Stegomyia*) in part

3. (continued)

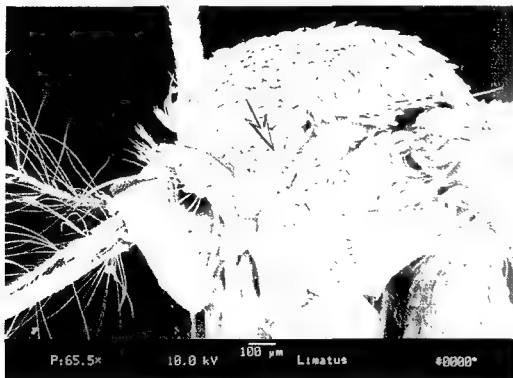
Page 91

**

Thorax. Lower mesepimeral setae
absent

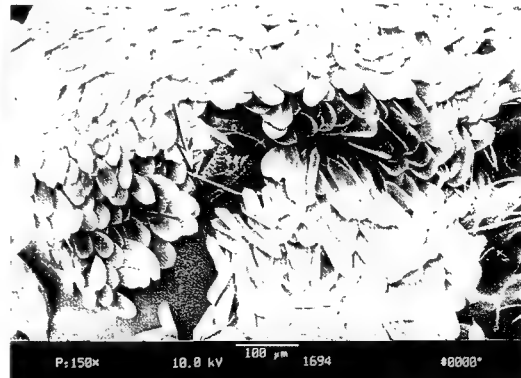


Thorax. Postpronotal setae
absent



Limatus

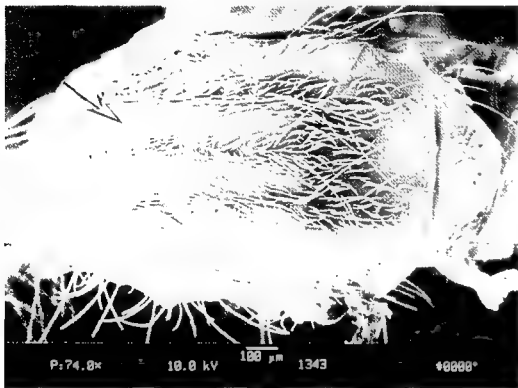
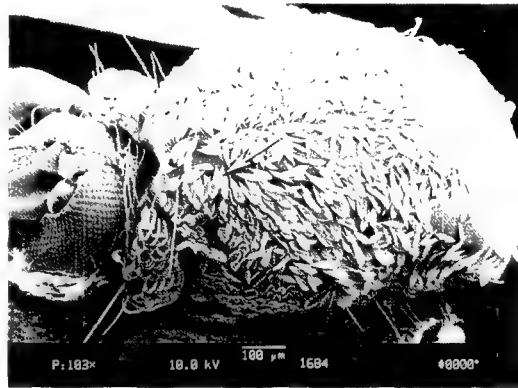
Thorax. Postpronotal setae
present



Haemagogus

3. (continued)

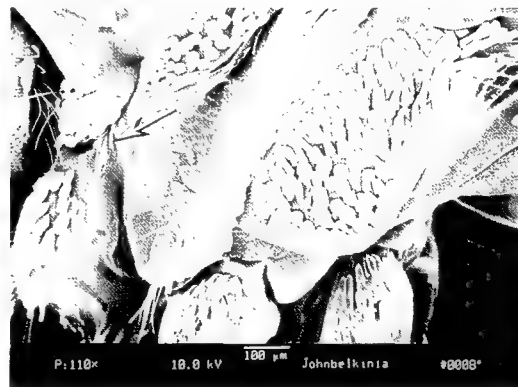
Page 92

Thorax. Scutum with all, or mainly
narrow scalesThorax. Scutum with all broad flat
scales

to Page 96

Thorax. Postprocoxal membrane
with scales

to Page 93

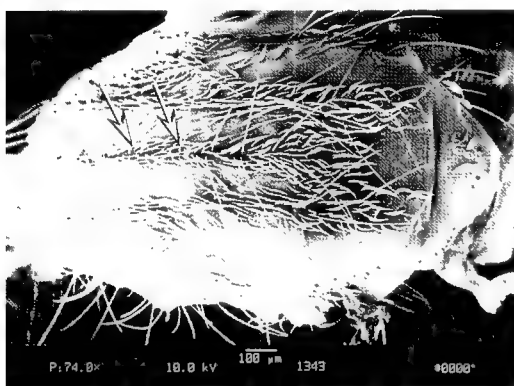
Thorax. Postprocoxal membrane
without scales

to Page 95

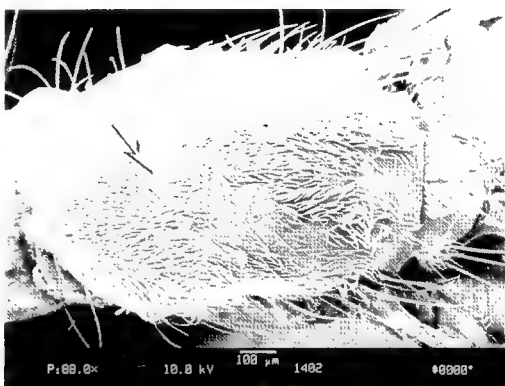
3. (continued)

Page 93

Thorax. Acrostichal setae
present

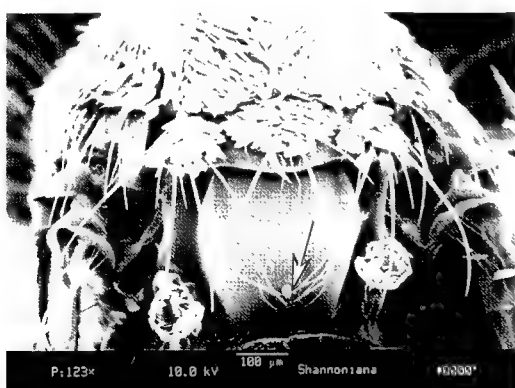


Thorax. Acrostichal setae
absent



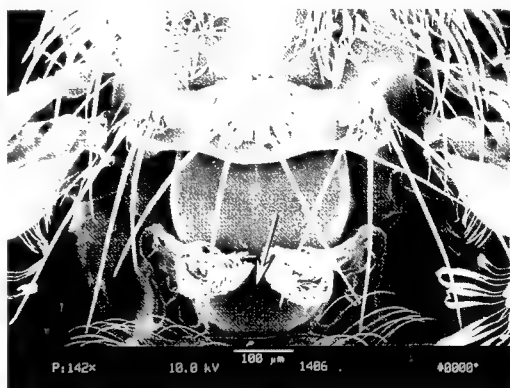
Maorigoeldia

Thorax. Mesopostnotal setae
present



to Page 94a

Thorax. Mesopostnotal setae
absent

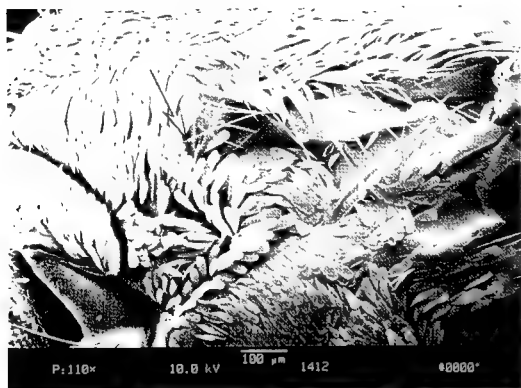


to Page 94b

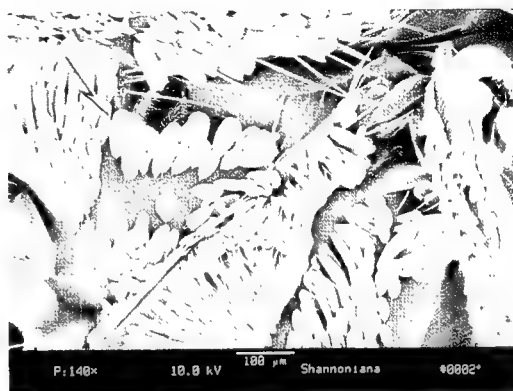
3. (continued)

Page 94a

Thorax. Postpronotal setae
present

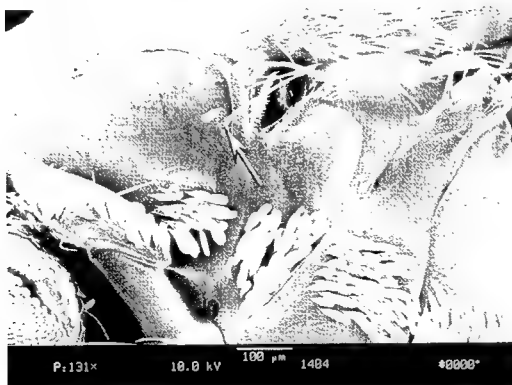
*Tripteroides* (in part)

Thorax. Postpronotal setae
absent

*Shannoniana*

Page 94b

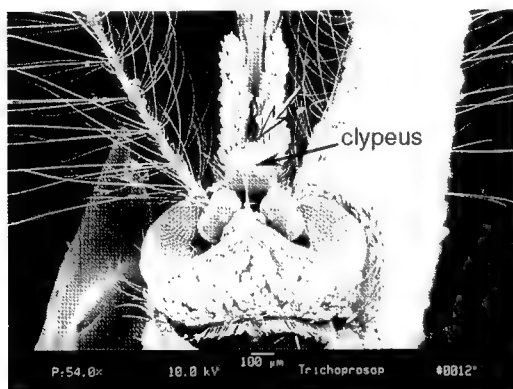
**
Thorax. Postpronotal setae
present

*Tripteroides* (in part)

3. (continued)

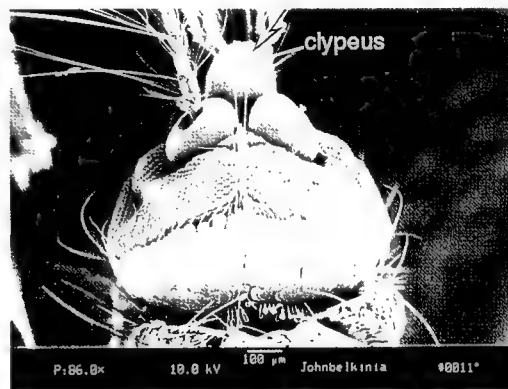
Page 95

Head. Clypeus with conspicuous setulae

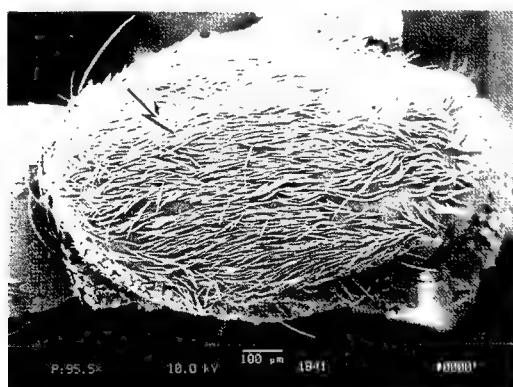


Trichoprosopon

Head. Clypeus without conspicuous setulae

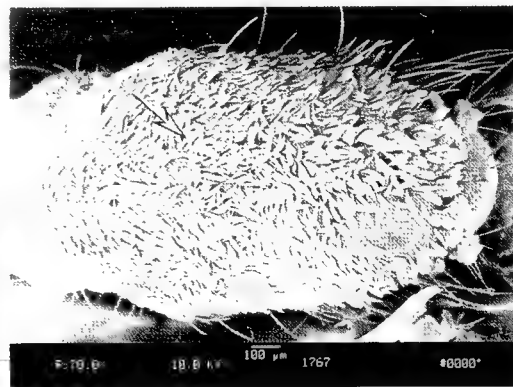


Thorax. Scutum with very narrow scales



Runchomyia

Thorax. Scutum with much broader scales

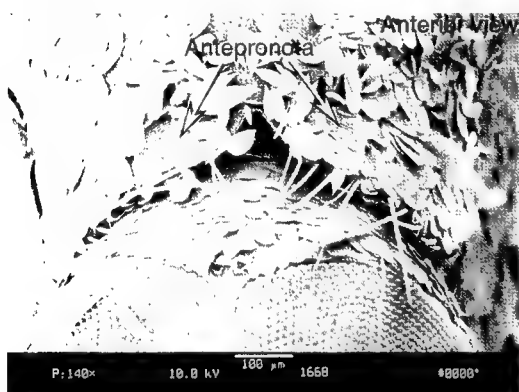


Johnbelkinia

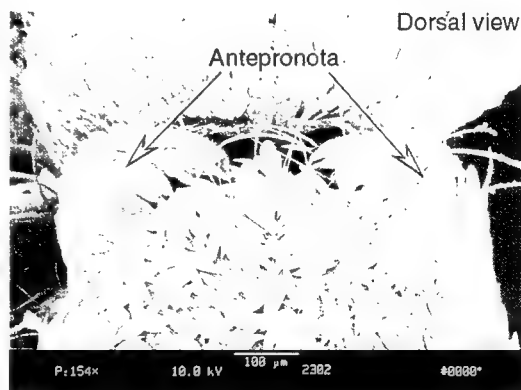
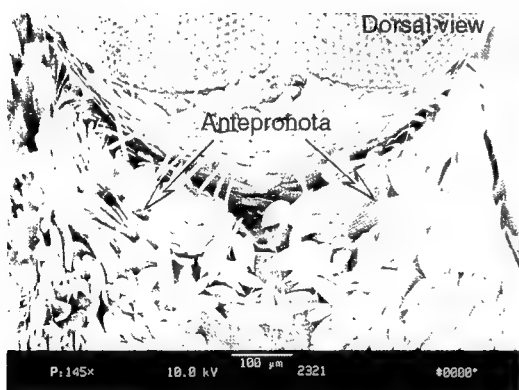
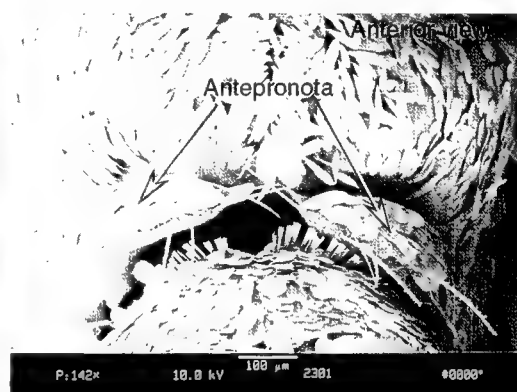
3. (continued)

Page 96

Thorax. Antepronota large, almost touching middorsally



Thorax. Antepronota large or small, widely separated middorsally



to Page 97

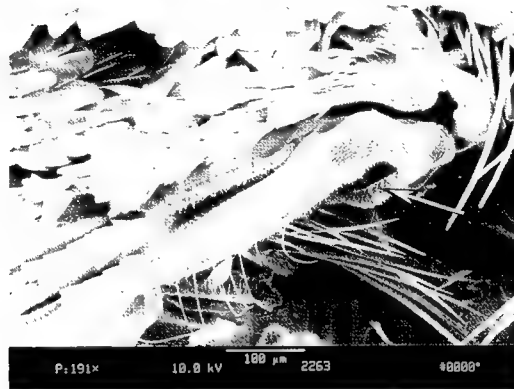
to Page 99

3. (continued)

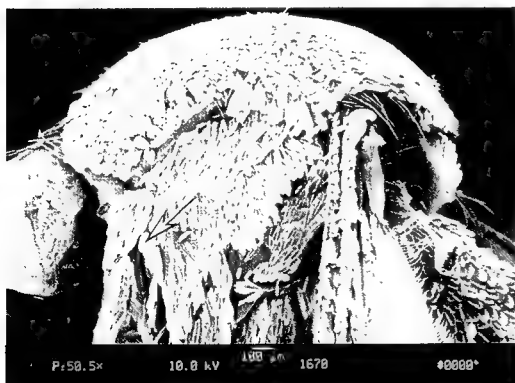
Page 97

**

Wing. Upper calypter not fringed

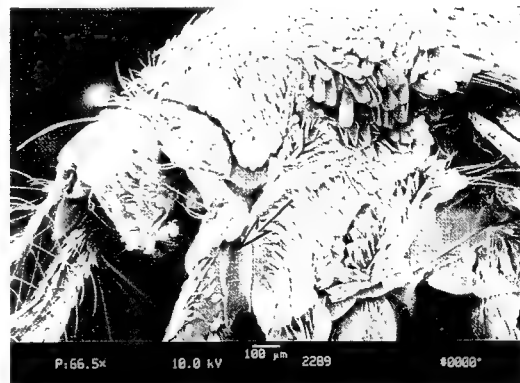


Thorax. Postprocoxal membrane
with scales



to Page 98a

Thorax. Postprocoxal membrane
without scales

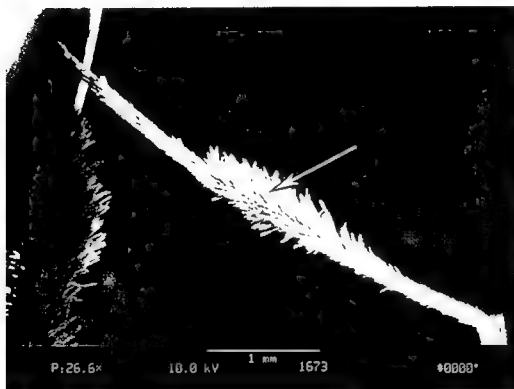


to Page 98b

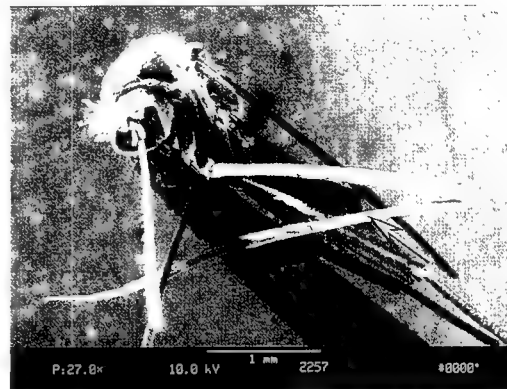
3. (continued)

Page 98a

Leg. Fore-tibia with paddle of erect scales

*Sabethes* (in part)

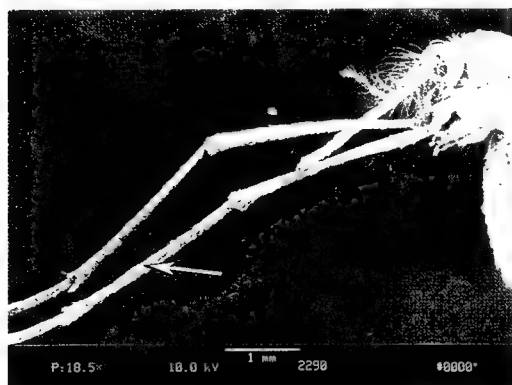
Leg. Fore-tibia without paddle of erect scales

*Sabethes* (in part)

Page 98b

**

Leg. Fore-tibia without paddle of erect scales

*Sabethes* (in part)

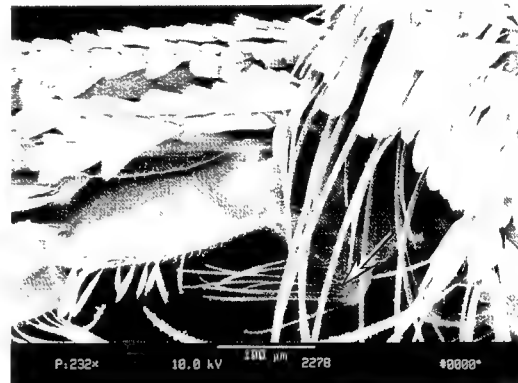
3. (continued)

Page 99

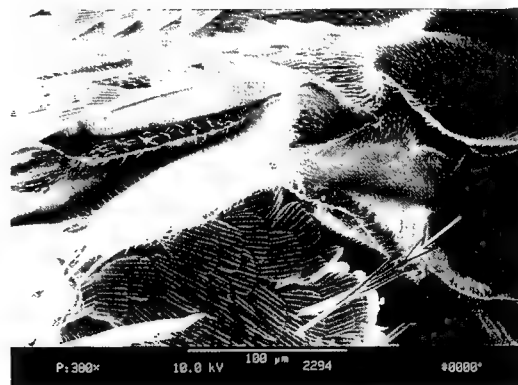
Wing. Upper calypter not fringed, or
with only a few (1-3) setae near alula



Wing. Upper calypter fringed with
hair-like setae, or with 3-4 setae
far from alula



to Page 100



Isostomyia

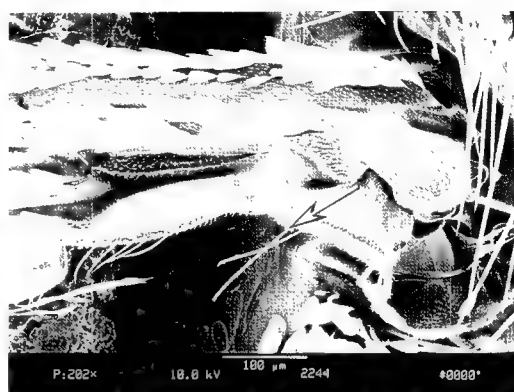
3. (continued)

Page 100

Wing. Upper calypter not fringed



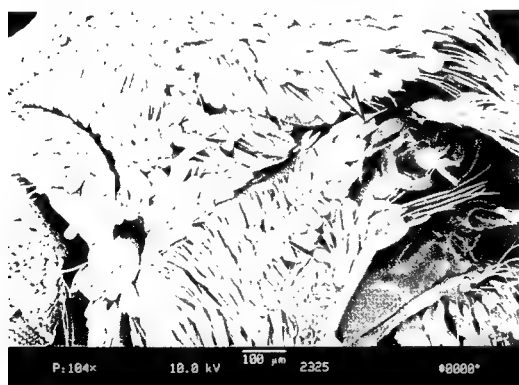
Wing. Upper calypter with few (1-3) setae near alula



Wyeomyia (in part)
Onirion

**

Thorax. Prealar setae present



to Page 101

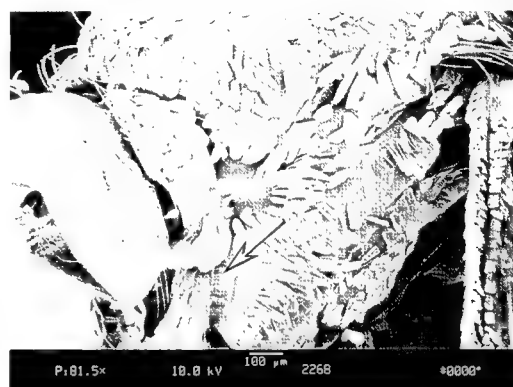
3. (continued)

Page 101

Thorax. Postprocoxal membrane
with scales

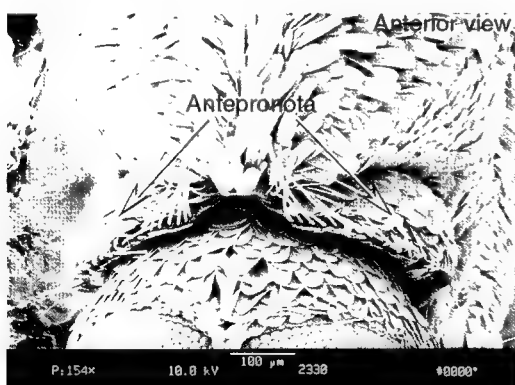


Thorax. Postprocoxal membrane
without scales



**

Thorax. Antepronota large, widely
separated middorsally



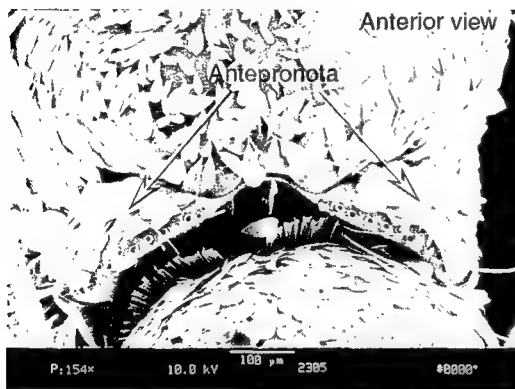
to Page 102

Wyeomyia (in part)

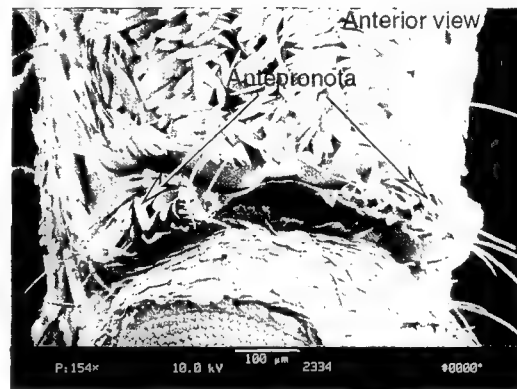
3. (continued)

Page 102

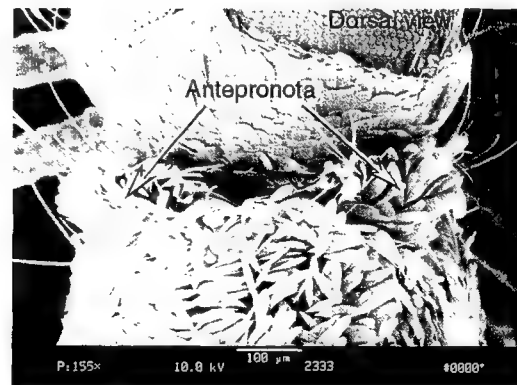
Thorax. Anteppronota large, widely
separated middorsally



Thorax. Anteppronota small, widely
separated middorsally



Wyeomyia* (*Davismyia*) **
Wyeomyia petrocchia

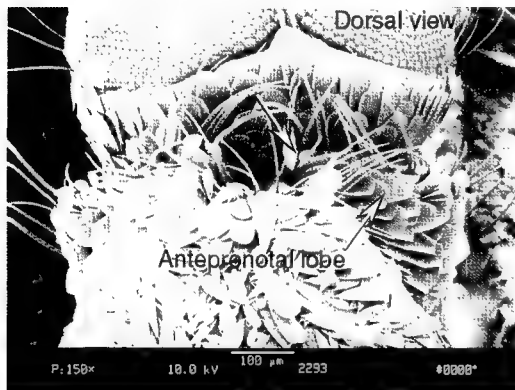


***Wyeomyia* (in part)**

3. (continued)

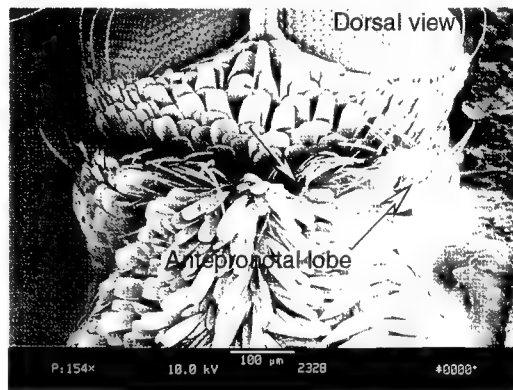
Page 103

Thorax. Anteprenotal lobe with a conspicuous apicomesal angle



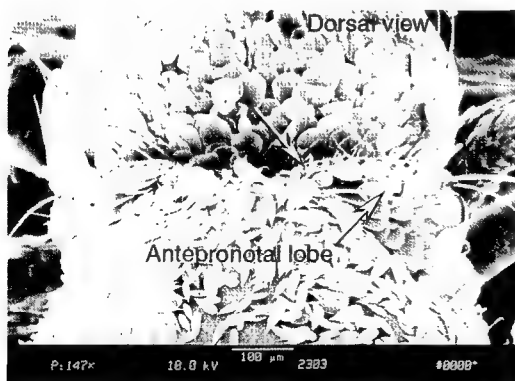
Sabethes hadrognathus

Thorax. Anteprenotal lobe without a conspicuous apicomesal angle



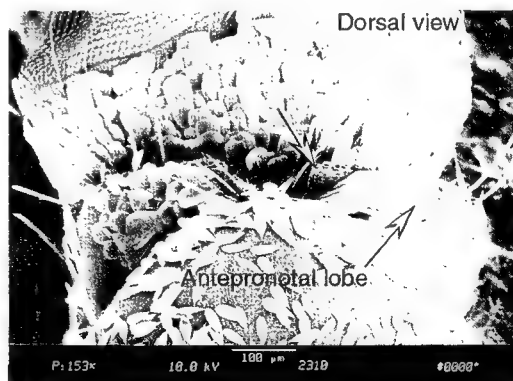
Wyeomyia arthro stigma

Thorax. Anteprenotal lobe without a conspicuous apicomesal angle



Wyeomyia (Davismyia) petrocchia

Thorax. Anteprenotal lobe with a conspicuous apicomesal angle

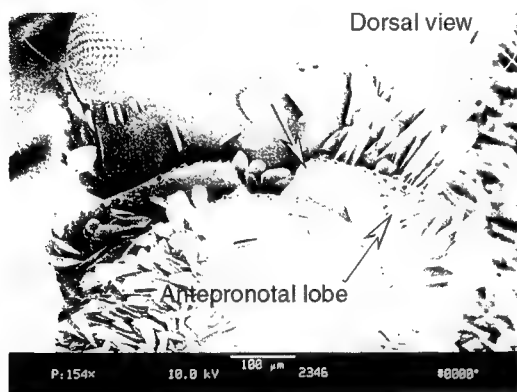


Sabethes schnusei

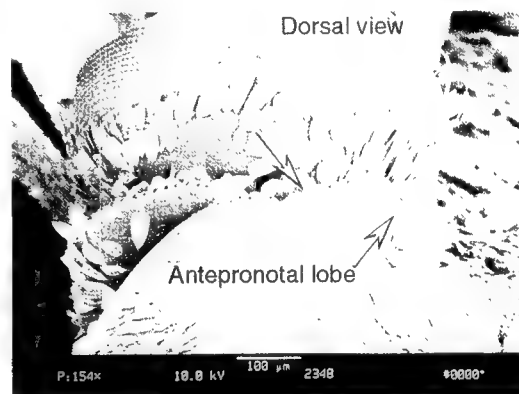
3. (continued)

Page 104 (scales off)

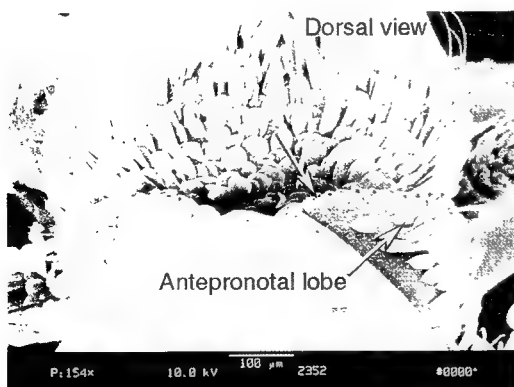
Thorax. Antepronotal lobe with a
conspicuous apicomesal angle

*Sabethes hadrognathus*

Thorax. Antepronotal lobe without a
conspicuous apicomesal angle

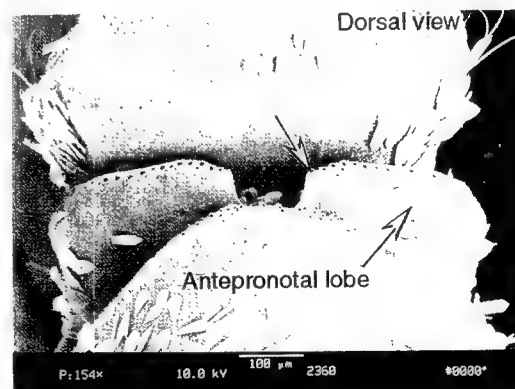
*Wyeomyia arthrostigma*

Thorax. Antepronotal lobe without a
conspicuous apicomesal angle



Wyeomyia (Davismyia)
Wyeomyia petrocchia

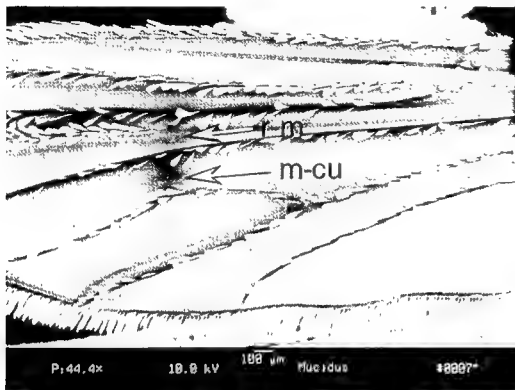
Thorax. Antepronotal lobe with a
conspicuous apicomesal angle

*Sabethes schnusei*

3. (continued)

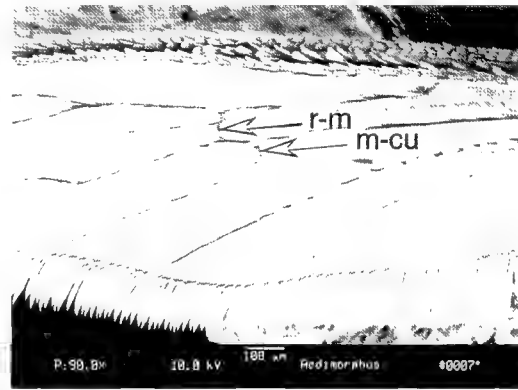
Page 105

Wing. Wing membrane clouded on
crossveins r-m and m-cu



Ochlerotatus (in part)
(*Mucidus*)

Wing. Wing membrane not clouded
on crossveins r-m and m-cu

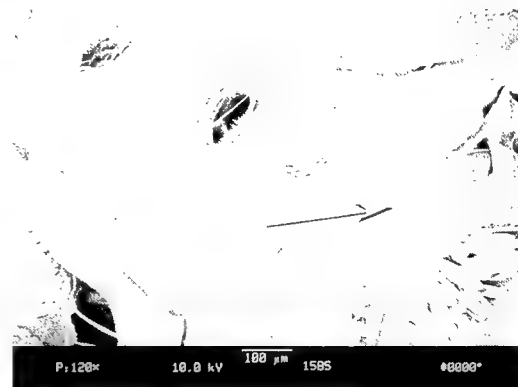


Thorax. Lower prealar scale patch
present



to Page 106

Thorax. Lower prealar scale patch
absent

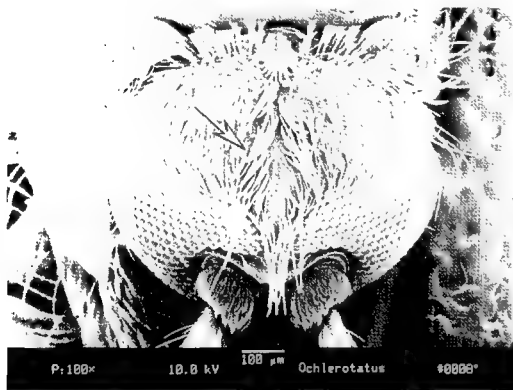


to Page 122

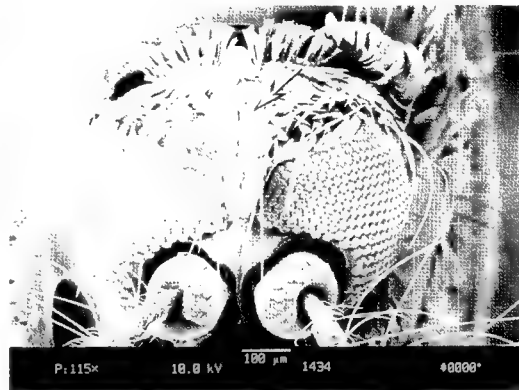
3. (continued)

Page 106

Head. Vertex with decumbent scales
largely narrow

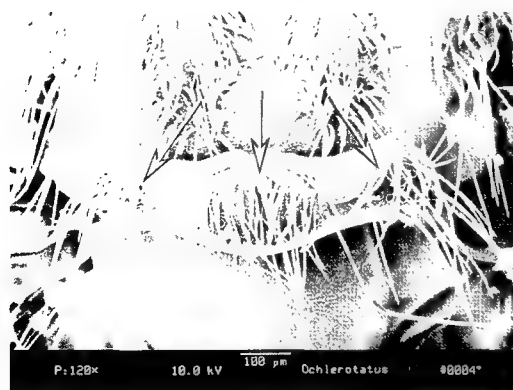


Head. Vertex with decumbent scales
largely broad



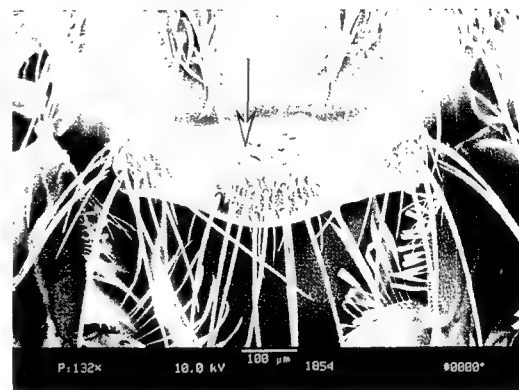
to Page 117c

Thorax. Scutellum with all narrow
scales



to Page 107

Thorax. Scutellum with all, or at least
some broad scales on midlobe

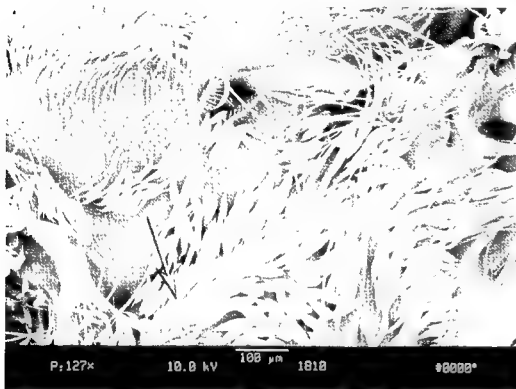


to Page 113b

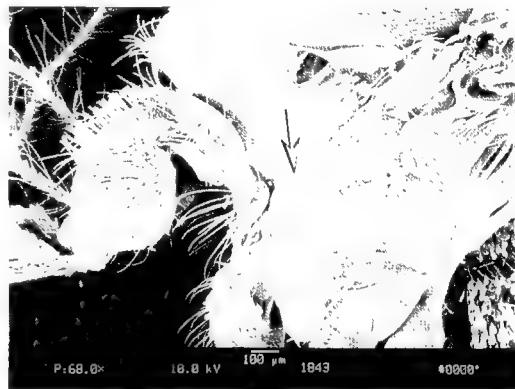
3. (continued)

Page 107

Thorax. Subspiracular area with
scales



Thorax. Subspiracular area without
scales



to Page 113a

Thorax. Postprocoxal membrane
with scales



to Page 108

Thorax. Postprocoxal membrane
without scales

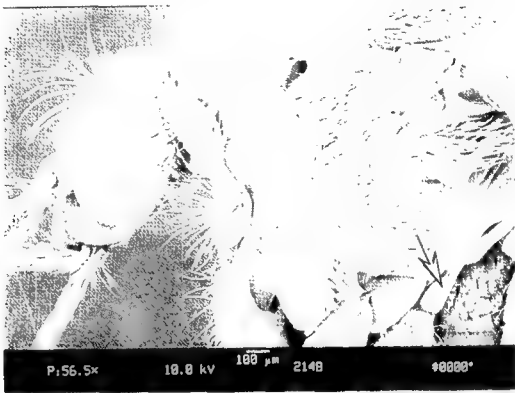


to Page 110

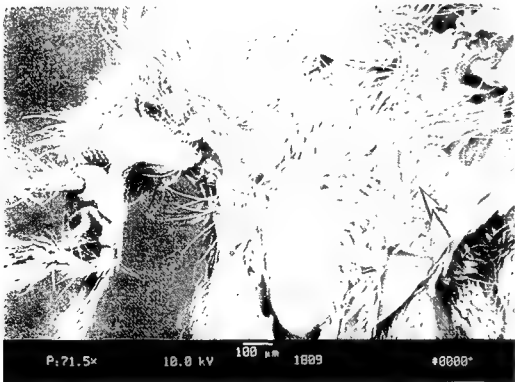
3. (continued)

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★★
Thorax. Metameron with scales

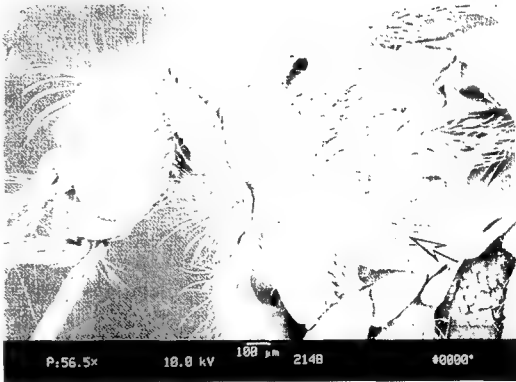


Thorax. Lower mesepimeral setae
present



to Page 109a

Thorax. Lower mesepimeral setae
absent

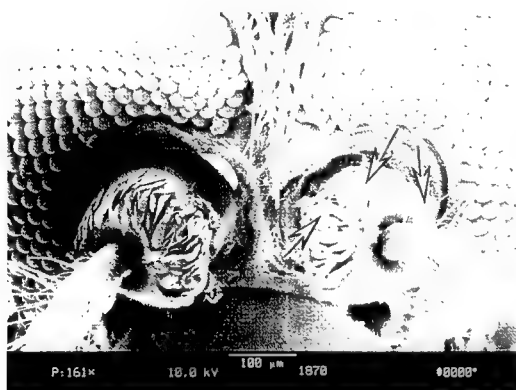


to Page 109b

3. (continued)

Page 109a

Head. Pedicel with few setae mixed with many scales on mesal and lateral surfaces



Ochlerotatus (in part)
(*Rusticoides*)

Head. Pedicel with white broad scales on mesal surface

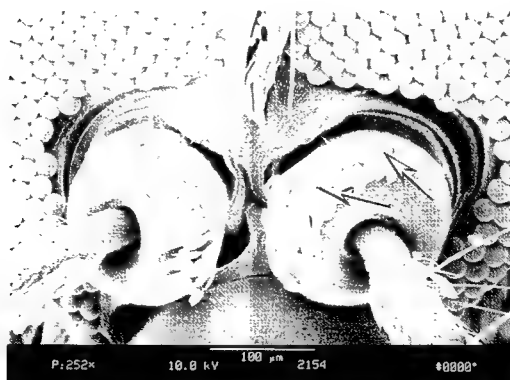


Ochlerotatus (in part)
(*Ochlerotatus*) in part

Page 109b

★★

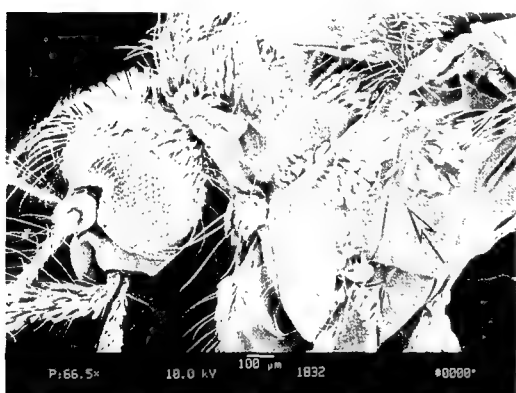
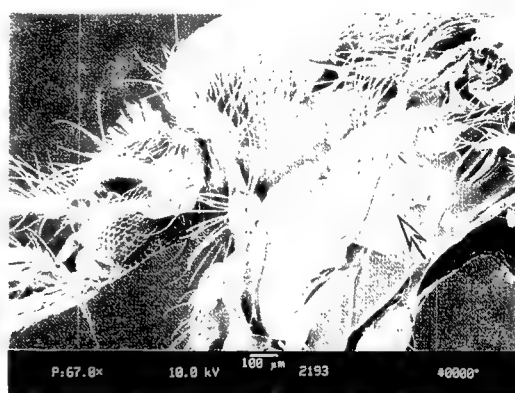
Head. Pedicel with a large patch of broad scales on mesal and dorsal surfaces



Ochlerotatus (in part)
(*Ochlerotatus*) in part

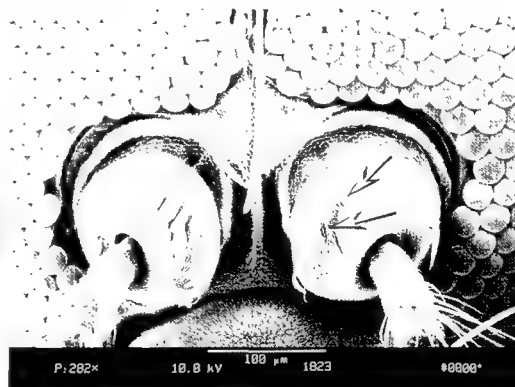
3. (continued)

Page 110

Thorax. Lower mesepimeral setae
presentThorax. Lower mesepimeral setae
absent

to Page 111

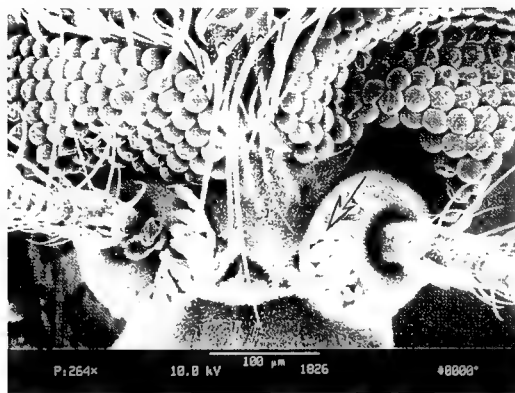
to Page 112

Head. Pedicel with long setae and
small broad scales on mesal surface*Ochlerotatus* (in part)
(*Halaedes*)Head. Pedicel with setae and
scales on mesal surface*Ochlerotatus* (in part)
(*Ochlerotatus*) in part

3. (continued)

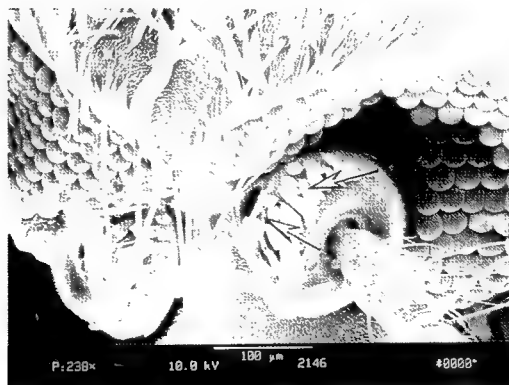
Page 111

Head. Pedicel with a large patch of white broad scales on mesal surface



Ochlerotatus (in part)
(*Finlaya*) in part

Head. Pedicel with few (2-3) setae mixed with a large patch of broad scales on mesal surface



Ochlerotatus (in part)
(*Ochlerotatus*) in part

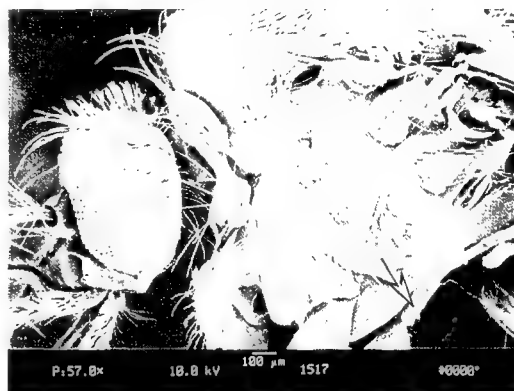
3. (continued)

Page 112

Thorax. Metameron with scales

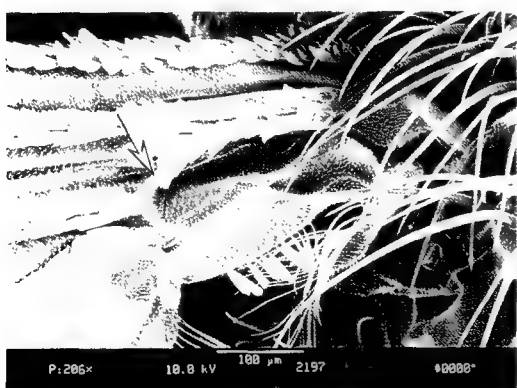


Thorax. Metameron without scales



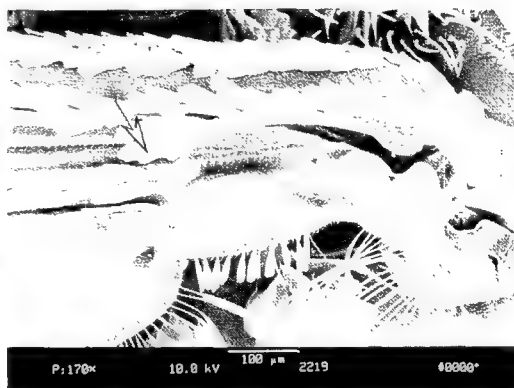
Ochlerotatus (in part)
(*Ochlerotatus*) in part

Wing. Remigial setae present



Ochlerotatus (in part)
(*Finlaya*) in part

Wing. Remigial setae absent

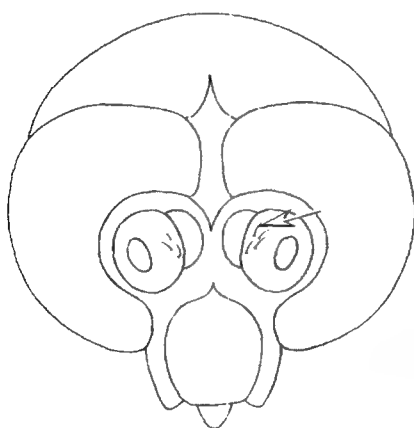


Ochlerotatus (in part)
(*Protomacleaya*) in part

3. (continued)

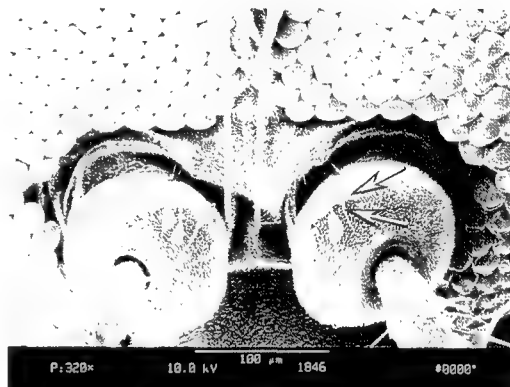
Page 113a

Head. Pedicel with few short fine setae on mesal surface



Ochlerotatus (in part)
(*Molpemyia*) in part

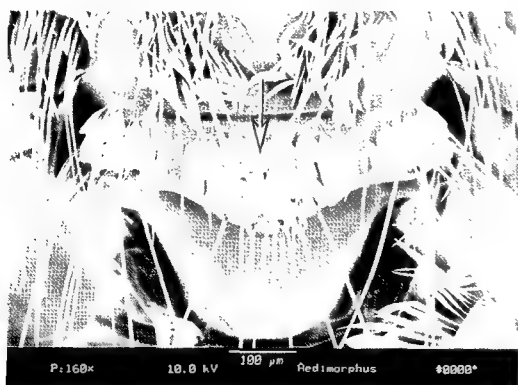
Head. Pedicel with short fine setae and small broad scales on mesal surface



Ochlerotatus (in part)
(*Ochlerotatus*) in part

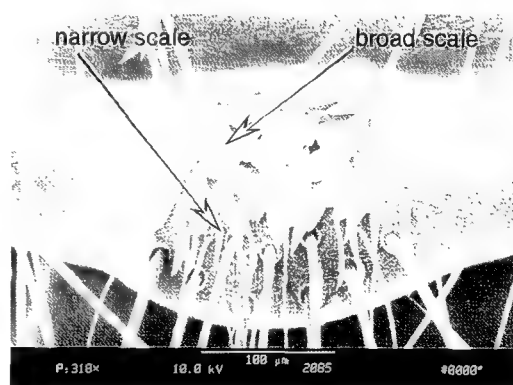
Page 113b

Thorax. Scutellum with all broad scales on midlobe



to Page 114

Thorax. Scutellum with narrow and broad scales on midlobe

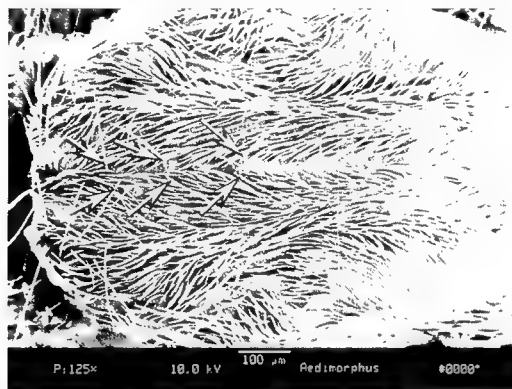
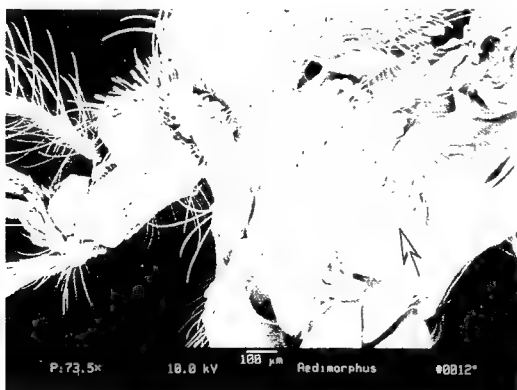


to Page 116

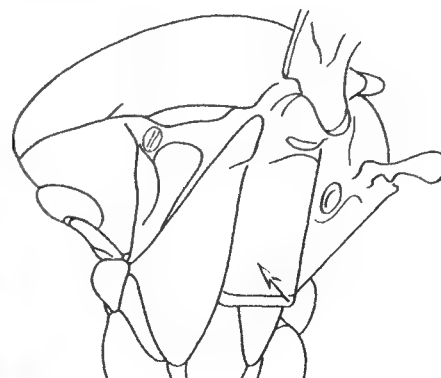
3. (continued)

Page 114

Thorax. Acrostichal setae present

Thorax. Lower mesepimeral setae
present

to Page 115a

Thorax. Lower mesepimeral setae
absent

to Page 115b

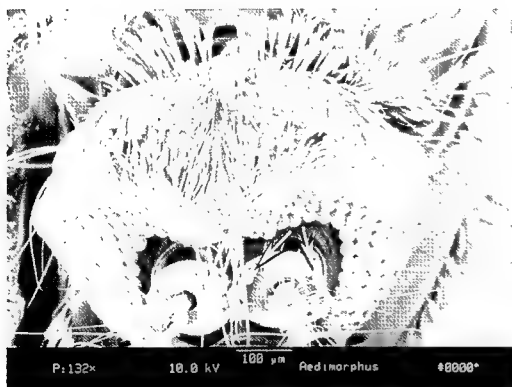
3. (continued)

Page 115a

**
Thorax. Scutellum with all broad
scales



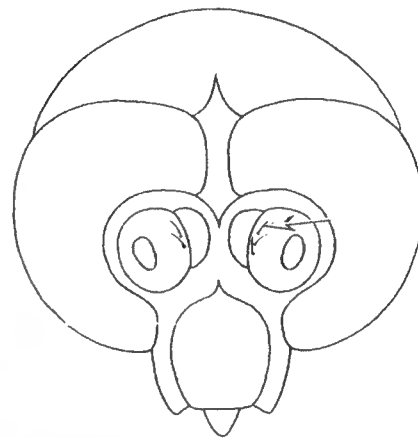
**
Head. Pedicel with white broad scales
on mesal and lateral surfaces



Aedes (in part)
(*Fredwardsius*) *vittatus*

Page 115b

**
Head. Pedicel with few short fine
setae on mesal surface



Ochlerotatus (in part)
(*Molpemyia*) in part

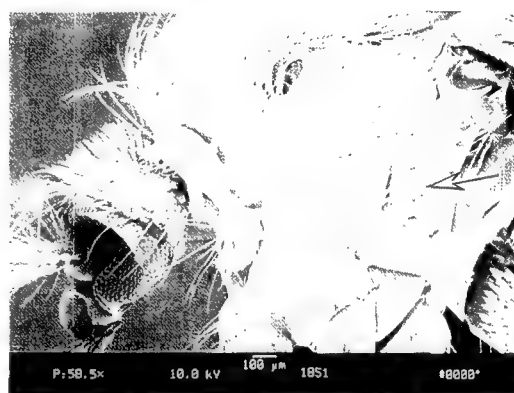
3. (continued)

Page 116

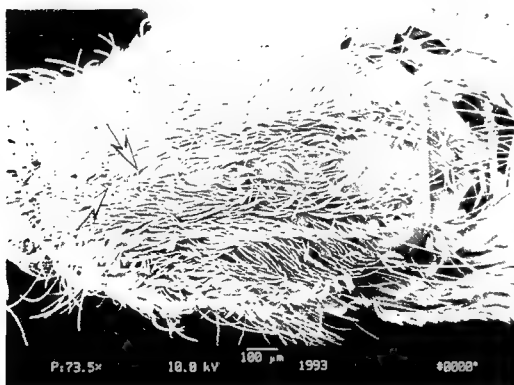
Thorax. Mesepimeron with 2 patches
of scales



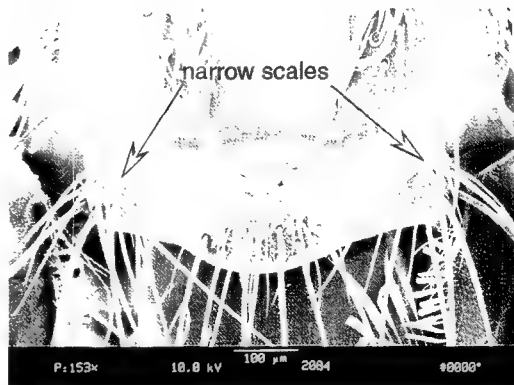
Thorax. Mesepimeron with a single
large patch of scales



**
Thorax. Acrostichal setae present



**
Thorax. Scutellum with all narrow
scales on lateral lobes



to Page 117a

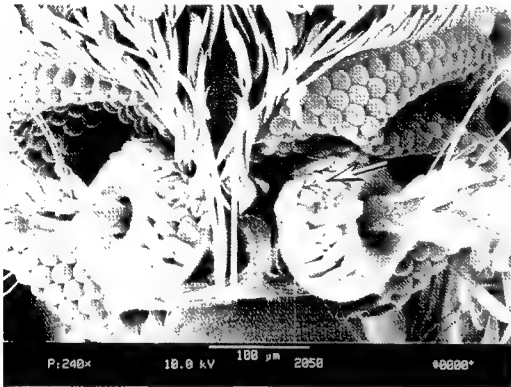
to Page 117b

3. (continued)

Page 117a

**

Head. Pedicel with a large patch of broad scales on mesal surface

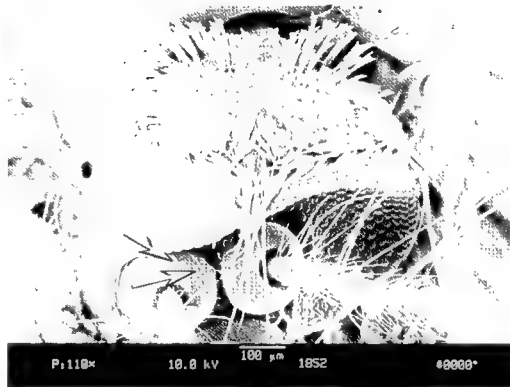


Ochlerotatus (in part)
Varipalpus Group

Page 117b

**

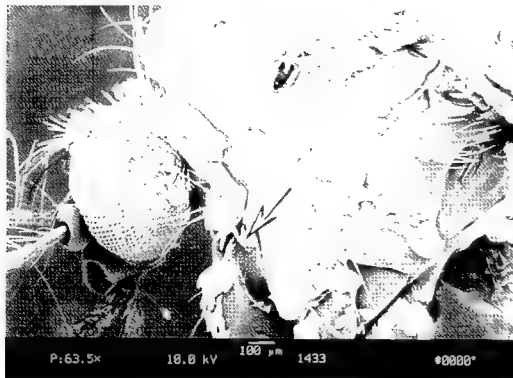
Head. Pedicel with setae and few (1-2) small scales on mesal surface



Ochlerotatus (in part)
(*Protomacleaya*) in part

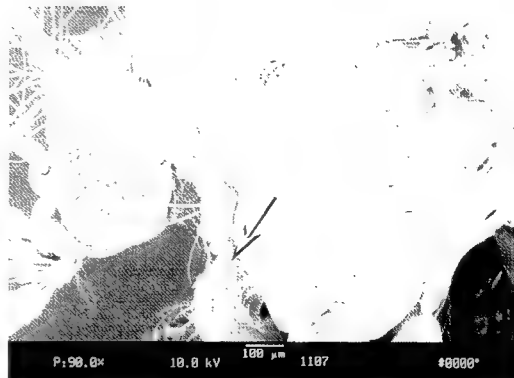
Page 117c

Thorax. Postprocoxal membrane
with scales



to Page 118a

Thorax. Postprocoxal membrane
without scales

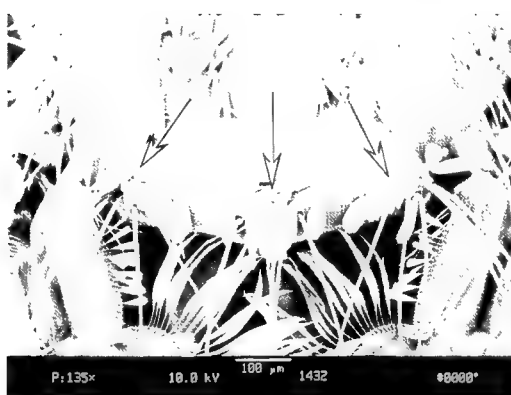


to Page 118b

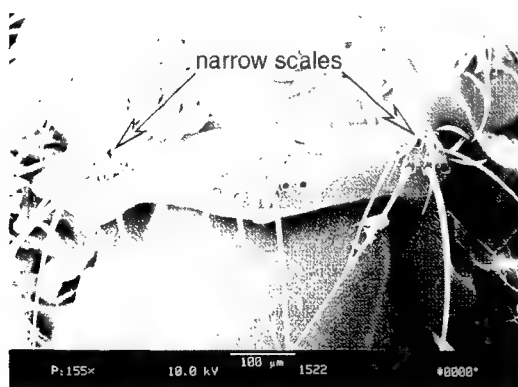
3. (continued)

Page 118a

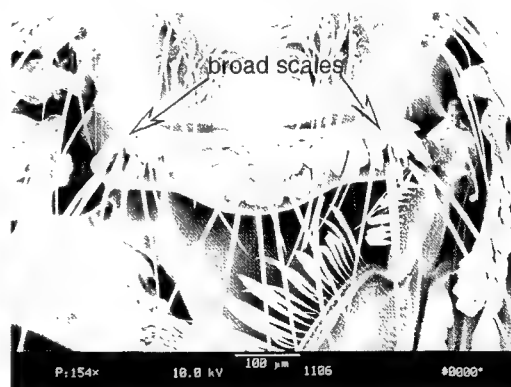
**

Thorax. Scutellum with all broad
scales*Ochlerotatus* (in part)
(*Abraedes*) *papago*

Page 118b

Thorax. Scutellum with all narrow
scales on lateral lobes

to Page 119

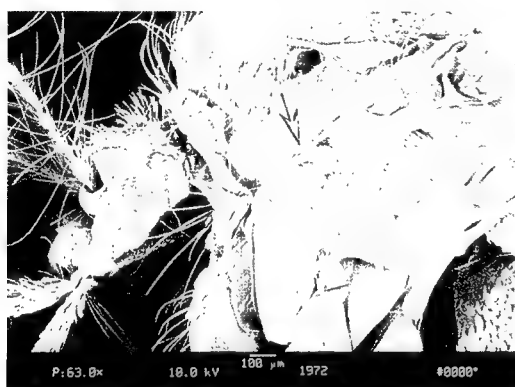
Thorax. Scutellum with all broad
scales on lateral lobes

to Page 120b

3. (continued)

Page 119

Thorax. Subspiracular area with
scales

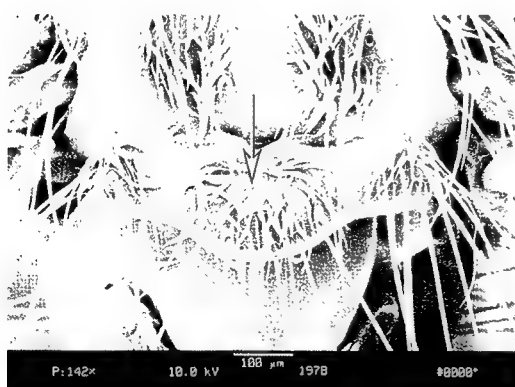


Thorax. Subspiracular area without
scales



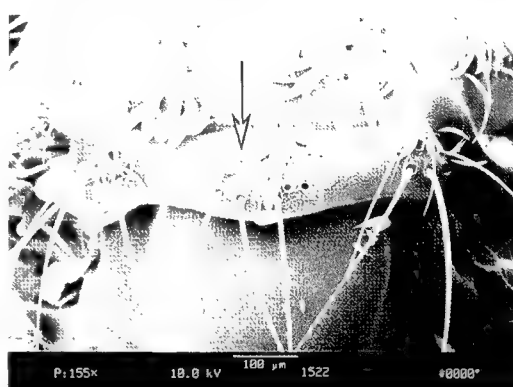
to Page 120a

Thorax. Scutellum with all narrow
scales on midlobe



Ochlerotatus (in part)
(*Finlaya*) in part

Thorax. Scutellum with all broad
scales on midlobe



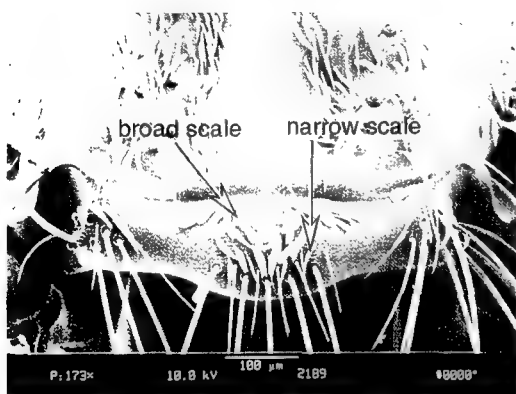
Ochlerotatus (in part)
(*Macleaya*)

3. (continued)

Page 120a

**

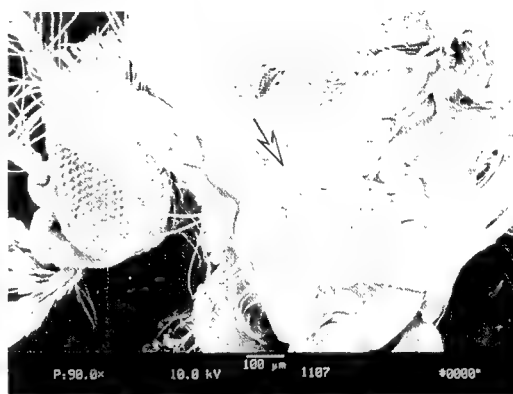
Thorax. Scutellum with narrow and broad scales on midlobe



Page 120b

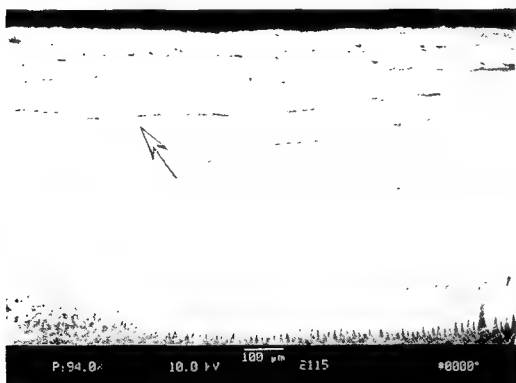
**

Thorax. Subspiracular area with scales



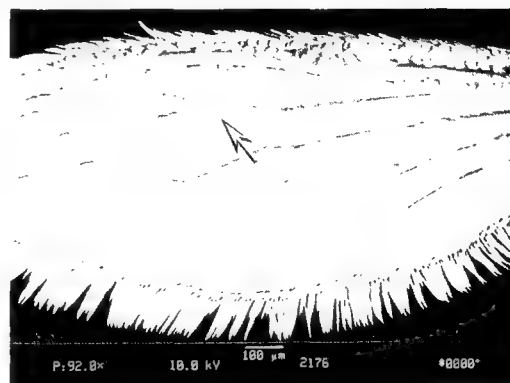
Ochlerotatus (in part)
(*Finlaya*) in part

Wing. Plume scales all broad



to Page 121a

Wing. Plume scales all narrow



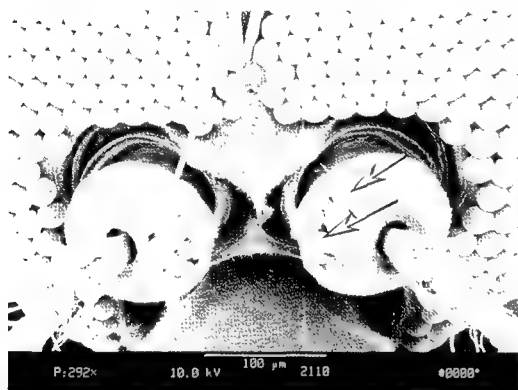
to Page 121b

3. (continued)

Page 121a

**

Head. Pedicel with a few (1-2) setae mixed with a small patch of broad scales on mesal surface



Ochlerotatus (in part)
(*Finlaya*) in part

Page 121b

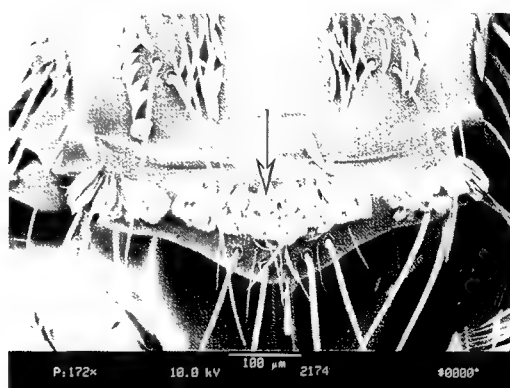
**

Head. Pedicel with a small patch of broad scales and a few (1-2) setae on mesal surface



**

Thorax. Scutellum with all broad scales on midlobe

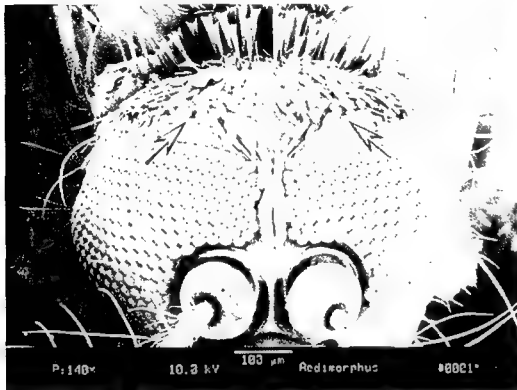


Ochlerotatus (in part)
(*Finlaya*) in part

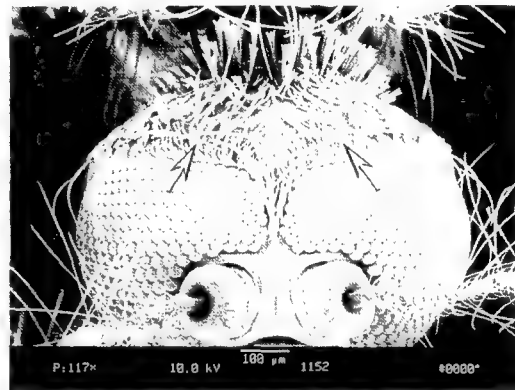
3. (continued)

Page 122

Head. Vertex with a pair of wedge-shaped patches of broad, flat scales on eye-margins



Head. Vertex without a pair of wedge-shaped patches of broad, flat scales on eye-margins



to Page 124

Thorax. Subspiracular area with scales



to Page 123a

Thorax. Subspiracular area without scales



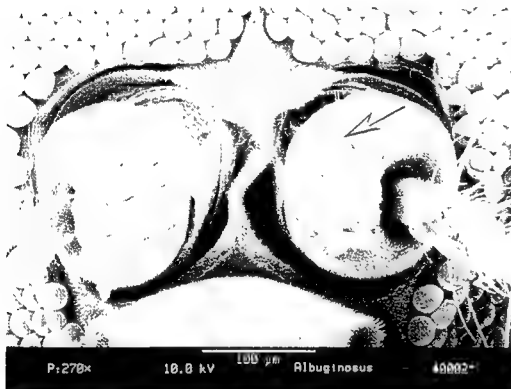
to Page 123b

3. (continued)

Page 123a

**

Head. Pedicel with a patch of white broad overlapping scales on mesal surface

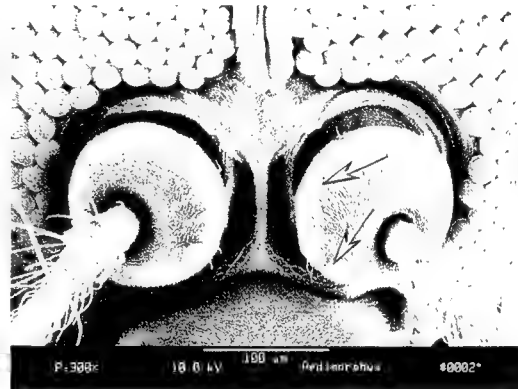


Aedes (in part)
(*Albuginosus*)

Page 123b

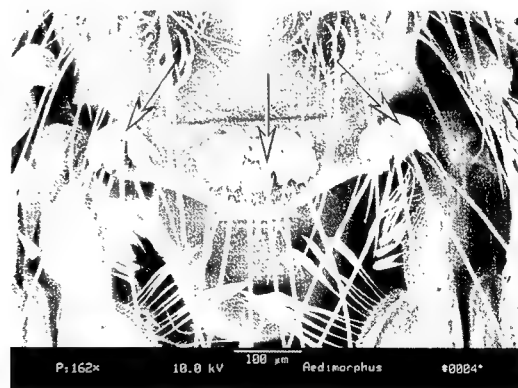
**

Head. Pedicel with a few small scales and short fine setae on mesal surface



**

Thorax. Scutellum with all broad, flat scales



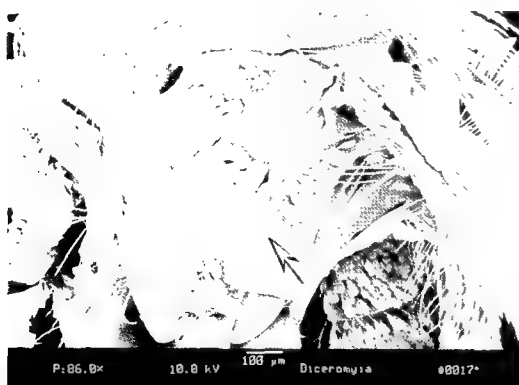
Aedes (in part)
(*Aedimorphus*) in part

3. (continued)

Page 124

Thorax. Subspiracular area with
scalesThorax. Subspiracular area without
scales

to Page 130

Thorax. Lower mesepimeral setae
present

to Page 125

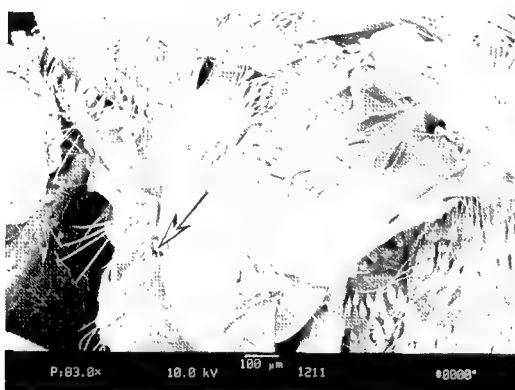
Thorax. Lower mesepimeral setae
absent

to Page 129b

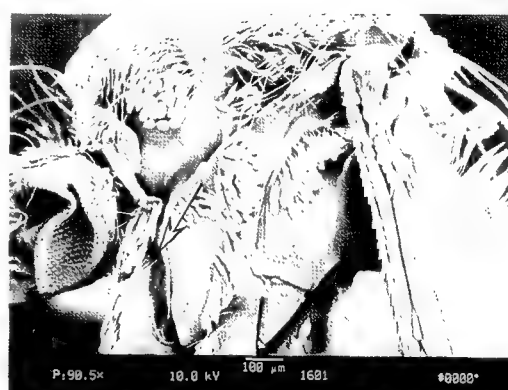
3. (continued)

Page 125

Thorax. Postprocoxal membrane
with scales

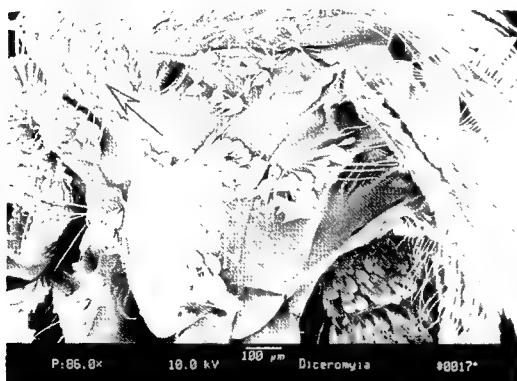


Thorax. Postprocoxal membrane
without scales

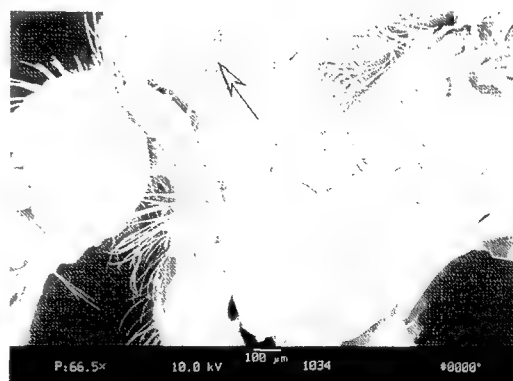


to Page 127

Thorax. Postpronotum with all, or
largely broad, flat scales



Thorax. Postpronotum with all, or
largely narrow curved scales



to Page 126

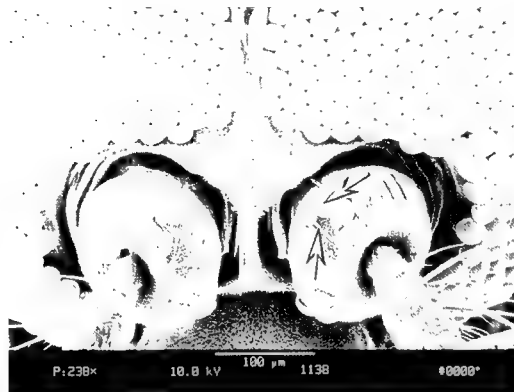
Aedes (in part)
(*Aedimorphus*) in part

3. (continued)

Page 126

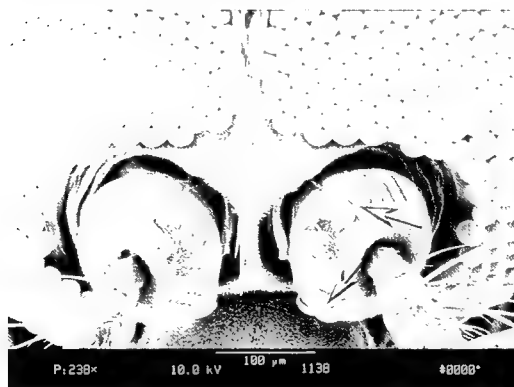
**

Head. Pedicel with setae mixed with many broad, flat scales on mesal surface



**

Head. Pedicel with 2 patches of scales on mesal surface

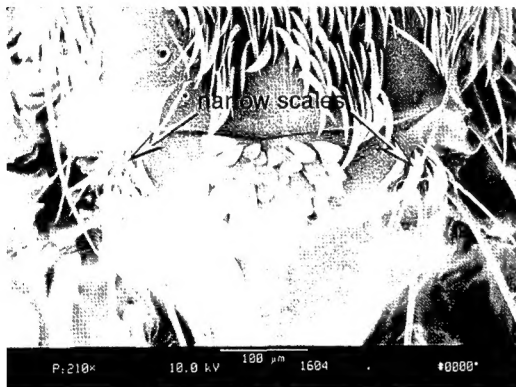


Aedes (in part)
(*Diceromyia*) in part

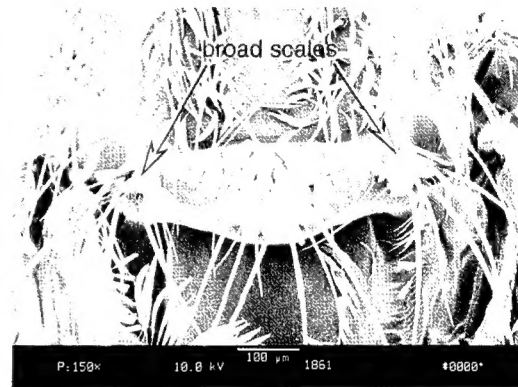
3. (continued)

Page 127

Thorax. Scutellum with all narrow scales on lateral lobes

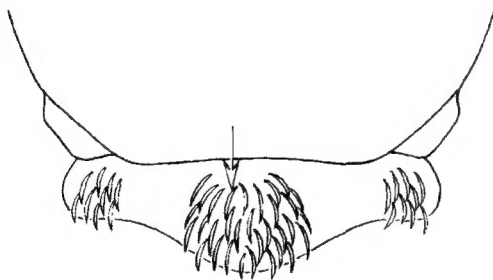


Thorax. Scutellum with all broad scales on lateral lobes



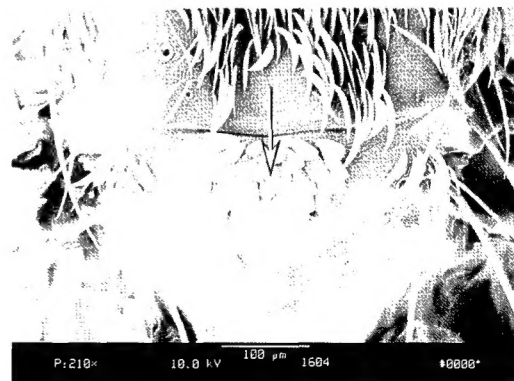
to Page 128

Thorax. Scutellum with all narrow scales on midlobe



Aedes (in part)
(*Huaedes*)

Thorax. Scutellum with all broad, flat scales on midlobe



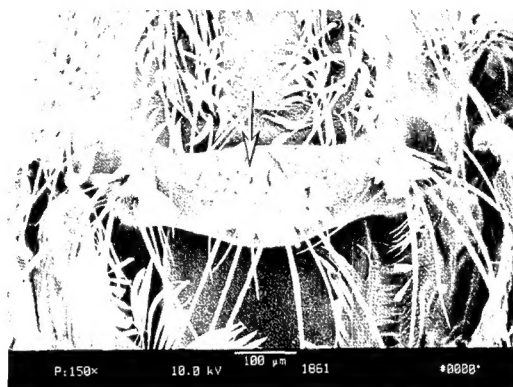
Aedes (in part)
(*Leptosomatomyia*)

3. (continued)

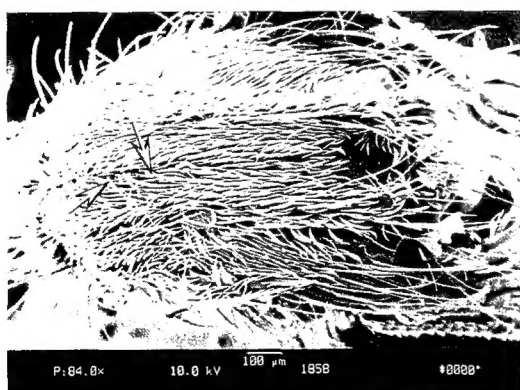
Page 128

**

Thorax. Scutellum with all broad scales
on midlobe

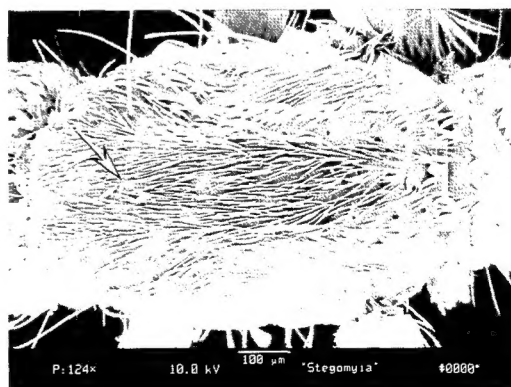


Thorax. Acrostichal setae present



Aedes (in part)
(*Diceromyia*) in part

Thorax. Acrostichal setae absent



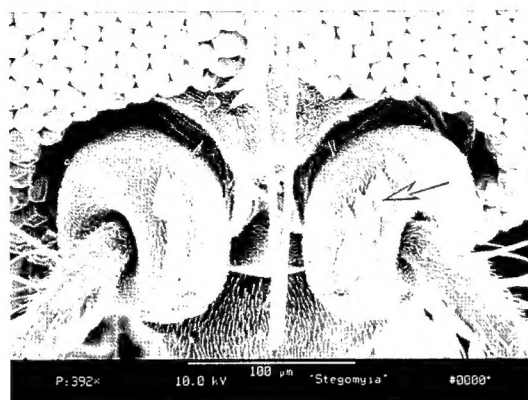
to Page 129a

3. (continued)

Page 129a

**

Head. Pedicel with a long patch of white broad, flat scales on mesal surface



Aedes (in part)

Aedes cozi

Page 129b

**

Thorax. Postpronotum with all, or largely narrow curved scales



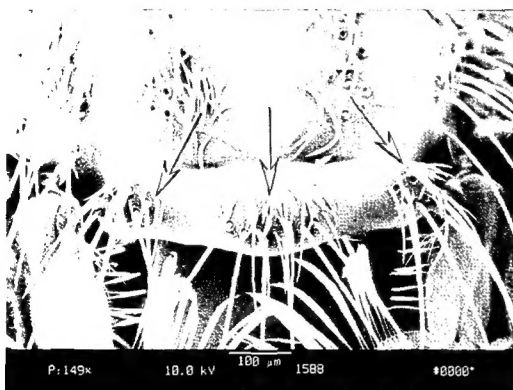
Aedes (in part)

(*Aedimorphus*) in part

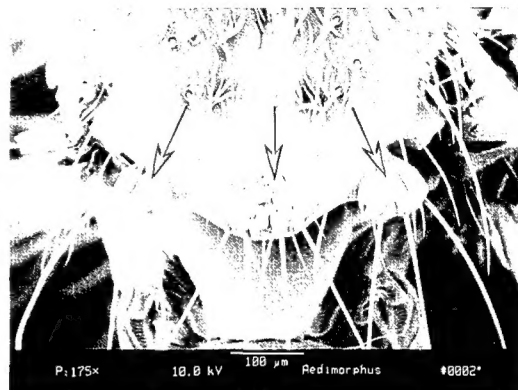
3. (continued)

Page 130

Thorax. Scutellum with all narrow
scales



Thorax. Scutellum with all broad
scales



**

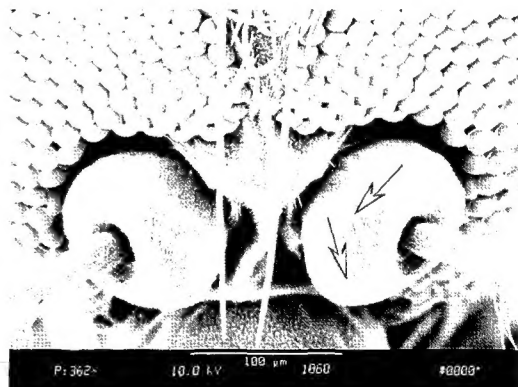
Thorax. Lower mesepimeral setae
absent



Aedes (in part)
(*Aedes*)

**

Head. Pedicel with few setae and
scales on mesal surface



Aedes (in part)
(*Aedimorphus*) in part